**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **10** | **25** | **55** | **56** | **57** | **58** | **59** | **60** | **61** | **62** | **66** | **67** | **68** | **69** | **70** | **71** | **72** | **73** | **82** | **92** | **93** | **94** | **95** | **96** | **97** | **98** | **99** | **100** |
| *P. amabilis* | T | A | C | T | T | T | C | T | A | T | T | C | T | A | T | A | T | T | C | T | T | T | A | T | T | A | T | C |
| *P. amboinensis* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. aphrodite* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. borneensis* | G | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. braceana* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - |
| *P. celebensis* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. chibae* | . | . | . | . | . | . | A | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. cornu-cervi* | G | G | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. doweryensis* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | C | T |
| *P. equestris* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | T | . | . | . | . | . | . | . | . | . |
| *P. fuscata* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | - | - | - | - | - | - | - | - | - |
| *P. gibbosa* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. gigantea* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | - | - | - | - | - | - | - | - | - |
| *P. inscriptiosinensis* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. lowii* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - |
| *P. micholitzii* | G | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. parishii* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | C | . | . | . | . | . |
| *P. philippinensis* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. pulchra* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. stuartiana* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. sumatrana* | . | . | A | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . |
| *P. venosa* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. violacea* | . | . | A | . | . | . | . | . | . | . | . | T | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. wilsonii* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | C | . | . | - | - | - |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **129** | **130** | **131** | **132** | **133** | **134** | **135** | **136** | **137** | **138** | **139** | **140** | **141** | **142** | **143** | **144** | **145** | **146** | **147** | **148** | **149** | **150** | **151** | **152** | **153** | **154** | **157** | **158** |
| *P. amabilis* | A | A | T | T | T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | C | T |
| *P. amboinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. aphrodite* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . |
| *P. borneensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. braceana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. celebensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. chibae* | T | T | A | C | . | T | T | T | A | T | C | T | T | T | A | C | T | T | T | A | A | A | T | T | T | T | G | . |
| *P. cornu-cervi* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. doweryensis* | T | . | . | C | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. equestris* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. fuscata* | - | - | - | - | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. gibbosa* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. gigantea* | T | . | . | C | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. inscriptiosinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. lowii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. micholitzii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. parishii* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. philippinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. pulchra* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. stuartiana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. sumatrana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. venosa* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. violacea* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. wilsonii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **129** | **130** | **131** | **132** | **133** | **134** | **135** | **136** | **137** | **138** | **139** | **140** | **141** | **142** | **143** | **144** | **145** | **146** | **147** | **148** | **149** | **150** | **151** | **152** | **153** | **154** | **157** | **158** |
| *P. amabilis* | A | A | T | T | T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | C | T |
| *P. amboinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. aphrodite* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . |
| *P. borneensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. braceana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. celebensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. chibae* | T | T | A | C | . | T | T | T | A | T | C | T | T | T | A | C | T | T | T | A | A | A | T | T | T | T | G | . |
| *P. cornu-cervi* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. doweryensis* | T | . | . | C | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. equestris* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. fuscata* | - | - | - | - | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. gibbosa* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. gigantea* | T | . | . | C | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. inscriptiosinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. lowii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. micholitzii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. parishii* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. philippinensis* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. pulchra* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. stuartiana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |
| *P. sumatrana* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. venosa* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. violacea* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . |
| *P. wilsonii* | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | G |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **159** | **162** | **164** | **165** | **166** | **171** | **172** | **173** | **174** | **175** | **178** | **181** | **189** | **195** | **201** | **202** | **207** | **208** | **241** | **242** | **243** | **244** | **245** | **246** | **247** | **258** | **273** | **274** |
| *P. amabilis* | A | - | G | A | A | A | T | T | C | A | C | G | T | T | A | G | T | G | - | - | - | - | - | - | - | G | A | G |
| *P. amboinensis* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. aphrodite* | . | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . |
| *P. borneensis* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. braceana* | . | - | . | . | . | . | . | . | . | . | . | . | . | . | T | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. celebensis* | . | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. chibae* | . | - | . | . | . | C | . | . | . | . | . | . | . | . | . | . | C | T | T | A | T | T | T | G | A | . | C | T |
| *P. cornu-cervi* | . | - | . | . | . | . | . | . | . | . | T | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. doweryensis* | T | C | T | T | C | . | A | A | A | T | T | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | . | T |
| *P. equestris* | . | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. fuscata* | T | C | T | T | C | . | A | A | A | T | T | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | . | T |
| *P. gibbosa* | . | - | . | . | . | C | . | . | . | . | . | . | G | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. gigantea* | T | C | T | T | C | . | A | A | A | T | T | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | . | T |
| *P. inscriptiosinensis* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. lowii* | . | - | . | . | T | . | . | . | . | . | . | . | . | G | . | . | C | T | - | - | - | - | - | - | - | . | . | T |
| *P. micholitzii* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. parishii* | . | - | . | . | . | C | . | . | . | . | . | . | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. philippinensis* | . | - | . | . | . | . | . | . | . | . | T | . | . | . | . | A | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. pulchra* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | T | C | T |
| *P. stuartiana* | . | - | . | . | . | C | . | . | . | . | T | . | . | . | . | A | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. sumatrana* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. venosa* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. violacea* | . | - | . | . | . | . | . | . | . | . | . | T | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |
| *P. wilsonii* | . | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | C | T | - | - | - | - | - | - | - | . | C | T |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **282** | **291** | **303** | **306** | **320** | **321** | **327** | **33** | **342** | **343** | **344** | **345** | **346** | **347** | **348** | **349** | **350** | **351** | **352** | **353** | **354** | **355** | **356** | **357** | **360** | **361** | **362** | **363** |
| *P. amabilis* | A | A | G | C | - | C | A | G | T | T | T | C | T | T | T | - | - | - | - | - | - | - | - | C | T | T | T | T |
| *P. amboinensis* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. aphrodite* | . | . | . | . | - | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. borneensis* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | A | . | . | . | . |
| *P. braceana* | . | G | T | A | T | . | . | . | . | . | . | A | . | . | . | T | T | T | A | T | T | T | A | T | . | . | - | . |
| *P. celebensis* | . | . | T | . | - | . | . | . | - | - | - | - | - | - | - | T | T | T | A | T | T | T | A | T | . | . | - | . |
| *P. chibae* | . | G | T | . | T | . | . | . | . | . | . | . | . | . | . | A | - | - | - | - | - | - | - | T | . | . | . | . |
| *P. cornu-cervi* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | A | . | . | . | . |
| *P. doweryensis* | . | G | T | . | T | A | . | . | . | . | . | . | . | . | . | A | - | - | - | - | - | - | - | - | . | . | . | . |
| *P. equestris* | . | G | T | . | - | . | . | . | . | . | . | A | - | - | - | T | T | T | A | T | T | T | T | T | A | . | A | . |
| *P. fuscata* | . | G | T | . | T | A | . | . | . | . | . | . | . | . | . | C | - | - | - | - | - | - | - | - | . | . | . | . |
| *P. gibbosa* | . | G | T | . | T | . | . | . | . | . | . | . | . | . | . | A | - | - | - | - | - | - | - | T | . | . | . | . |
| *P. gigantea* | . | G | T | . | T | A | C | . | . | . | . | . | . | . | . | A | - | - | - | - | - | - | - | - | . | . | . | . |
| *P. inscriptiosinensis* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. lowii* | . | G | T | A | T | . | . | T | . | . | . | A | . | . | . | - | - | - | - | - | - | - | A | T | . | . | - | . |
| *P. micholitzii* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. parishii* | . | . | T | . | T | . | . | . | . | . | . | . | . | . | . | A | - | - | - | - | - | - | - | T | . | . | . | . |
| *P. philippinensis* | . | . | T | . | - | . | . | . | . | . | . | A | . | . | A | T | T | T | A | T | T | T | A | T | . | . | - | . |
| *P. pulchra* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. stuartiana* | . | . | T | . | - | . | . | . | . | . | . | A | . | . | A | T | T | T | A | T | T | T | A | T | . | . | - | . |
| *P. sumatrana* | C | G | T | . | T | . | . | . | A | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. venosa* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. violacea* | C | G | T | . | T | . | . | . | - | . | . | T | C | . | . | T | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. wilsonii* | . | . | T | A | T | . | . | . | . | . | . | A | . | . | . | T | T | T | A | T | T | T | A | T | . | . | - | . |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **364** | **365** | **366** | **371** | **372** | **377** | **382** | **393** | **394** | **395** | **396** | **397** | **398** | **399** | **400** | **401** | **402** | **403** | **404** | **405** | **410** | **417** | **420** | **424** | **430** | **432** | **444** | **450** |
| *P. amabilis* | T | T | A | C | - | T | - | - | - | - | - | - | - | - | - | - | - | T | T | A | T | - | T | G | G | T | G | T |
| *P. amboinensis* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. aphrodite* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. borneensis* | . | . | C | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. braceana* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | G | A | G |
| *P. celebensis* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. chibae* | - | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. cornu-cervi* | . | . | C | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. doweryensis* | . | . | . | . | - | . | - | T | T | A | - | - | - | - | - | - | - | - | - | - | . | - | G | T | . | . | . | G |
| *P. equestris* | . | C | . | . | T | C | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. fuscata* | . | . | . | . | - | . | - | T | T | A | G | T | T | A | T | A | A | . | . | . | . | - | G | T | . | . | . | G |
| *P. gibbosa* | A | . | . | . | - | . | T | T | T | A | T | T | T | C | - | - | A | . | . | . | . | A | . | . | . | . | . | G |
| *P. gigantea* | . | . | . | . | - | . | - | T | T | A | - | - | - | - | - | - | - | - | - | - | G | - | G | T | . | . | . | G |
| *P. inscriptiosinensis* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. lowii* | . | . | C | T | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | T | G | A | G |
| *P. micholitzii* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. parishii* | - | . | . | . | - | . | T | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | G | . | . | . | . | G |
| *P. philippinensis* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. pulchra* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. stuartiana* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | . | G |
| *P. sumatrana* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. venosa* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | G | - | . | . | . | . | . | G |
| *P. violacea* | . | . | . | T | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | C | . | - | . | . | . | . | . | G |
| *P. wilsonii* | . | . | . | . | - | . | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | - | . | . | . | . | A | G |

**Table 4.** Nucleotide position of polymorphic siteon the *rbc*L region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | |
| **486** | **492** | **494** | **524** | **539** | **545** | **554** | **565** | **581** | **587** | **588** | **616** | **619** | **633** | **645** | **730** | **736** |
| *P. amabilis* | C | G | C | T | C | T | A | C | T | A | T | A | T | G | C | A | A |
| *P. amboinensis* | . | . | A | . | . | C | . | . | . | . | . | . | . | . | . | . | . |
| *P. aphrodite* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. borneensis* | . | . | . | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. braceana* | . | . | A | . | . | C | . | . | G | C | . | C | . | . | . | . | . |
| *P. celebensis* | . | . | . | . | . | . | . | A | . | C | . | . | . | . | T | . | . |
| *P. chibae* | . | . | A | G | . | C | . | . | . | C | . | . | . | . | . | . | . |
| *P. cornu-cervi* | . | . | . | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. doweryensis* | . | . | . | . | . | C | T | . | G | C | . | . | . | . | . | G | . |
| *P. equestris* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. fuscata* | . | . | A | . | . | C | T | . | . | C | . | . | . | . | . | G | . |
| *P. gibbosa* | . | A | A | G | . | C | . | . | . | C | . | . | . | . | . | . | . |
| *P. gigantea* | . | . | A | . | . | C | T | . | . | C | . | . | . | . | . | G | . |
| *P. inscriptiosinensis* | . | . | A | . | T | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. lowii* | . | . | . | . | . | C | . | . | . | . | G | . | G | . | . | . | . |
| *P. micholitzii* | . | . | . | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. parishii* | . | A | A | . | . | C | . | . | . | C | . | . | . | . | . | . | . |
| *P. philippinensis* | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. pulchra* | . | . | A | . | . | C | T | . | . | . | . | . | . | . | . | . | G |
| *P. stuartiana* | . | . | . | . | . | . | . | . | . | . | . | . | . | A | . | . | . |
| *P. sumatrana* | . | . | A | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. venosa* | . | . | A | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. violacea* | . | . | A | . | . | C | T | . | . | . | . | . | . | . | . | . | . |
| *P. wilsonii* | A | . | A | . | . | C | . | . | . | . | . | . | . | . | . | . | . |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **64** | **73** | **84** | **90** | **93** | **108** | **109** | **110** | **111** | **112** | **113** | **125** | **126** | **150** | **151** | **152** | **153** | **154** | **155** | **156** | **157** | **158** | **160** | **169** | **199** | **214** | **215** | **216** |
| *P. amabilis* | T | G | A | C | C | - | - | - | - | - | G | A | A | T | A | C | C | T | A | A | G | A | G | C | C | G | A | A |
| *P. amboinensis* | . | . | . | T | . | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. aphrodite* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. borneensis* | C | . | . | T | T | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. braceana* | . | . | . | T | . | - | - | - | - | - | T | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. celebensis* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. chibae* | . | A | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | A | - | - | - |
| *P. cornu-cervi* | C | . | . | T | T | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. doweryensis* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. equestris* | . | . | G | T | T | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. fuscata* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. gibbosa* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | A | . | . | - | - | - |
| *P. gigantea* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. inscriptiosinensis* | . | . | . | T | . | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. lowii* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | A | A | . | - | - | - |
| *P. micholitzii* | C | . | . | T | T | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. parishii* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | A | . | . | - | - | - |
| *P. philippinensis* | . | . | . | T | . | G | A | A | A | A | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |
| *P. pulchra* | . | . | . | T | . | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. stuartiana* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | A | . | . | - | - | - |
| *P. sumatrana* | . | . | . | T | . | - | - | - | - | - | . | G | G | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. venosa* | . | . | . | T | . | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. violaceae* | . | . | . | T | . | - | - | - | - | - | . | . | . | - | - | - | - | - | - | - | - | - | . | . | . | - | - | - |
| *P. wilsonii* | . | . | . | T | . | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **217** | **218** | **219** | **220** | **221** | **227** | **233** | **244** | **245** | **249** | **250** | **251** | **252** | **253** | **254** | **255** | **256** | **257** | **263** | **265** | **269** | **271** | **276** | **282** | **283** | **284** | **285** | **286** |
| *P. amabilis* | T | A | T | C | G | T | G | T | A | A | - | - | - | - | - | - | - | G | A | A | G | A | C | G | - | - | - | - |
| *P. amboinensis* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | A | . | A | A | A | T |
| *P. aphrodite* | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. borneensis* | - | - | - | - | . | . | A | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | A | - | - | - | - |
| *P. braceana* | - | - | - | - | . | . | . | . | . | C | - | - | - | - | - | - | - | T | . | . | . | . | A | . | - | - | - | - |
| *P. celebensis* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | A | . | - | - | - | - |
| *P. chibae* | - | - | - | - | A | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. cornu-cervi* | - | - | - | - | . | . | A | . | . | . | - | - | - | - | - | - | - | . | . | . | . | G | . | . | - | - | - | - |
| *P. doweryensis* | - | - | - | - | . | G | . | . | . | . | C | A | T | A | T | T | A | . | . | . | . | . | . | . | - | - | - | - |
| *P. equestris* | - | - | - | - | . | . | . | - | - | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. fuscata* | - | - | - | - | . | G | . | . | . | . | G | A | T | A | T | T | A | . | . | . | . | . | . | . | - | - | - | - |
| *P. gibbosa* | - | - | - | - | A | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. gigantea* | - | - | - | - | . | G | . | . | . | . | G | A | T | A | T | T | A | . | . | . | . | . | . | . | - | - | - | - |
| *P. inscriptiosinensis* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. lowii* | - | - | - | - | A | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. micholitzii* | - | - | - | - | A | . | A | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. parishii* | - | - | - | - | A | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. philippinensis* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. pulchra* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | C | C | T | . | A | . | - | - | - | - |
| *P. stuartiana* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | C | . | . | - | - | - | - |
| *P. sumatrana* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | . | . | - | - | - | - |
| *P. venosa* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | A | . | A | A | A | T |
| *P. violaceae* | - | - | - | - | . | . | . | . | . | . | - | - | - | - | - | - | - | . | . | . | . | . | A | . | - | - | - | - |
| *P. wilsonii* | - | - | - | - | . | . | . | . | . | C | - | - | - | - | - | - | - | T | . | . | . | . | . | . | - | - | - | - |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **287** | **288** | **289** | **296** | **299** | **300** | **306** | **311** | **312** | **313** | **314** | **315** | **316** | **317** | **318** | **319** | **320** | **321** | **322** | **323** | **324** | **325** | **326** | **327** | **328** | **329** | **330** | **331** |
| *P. amabilis* | - | - | - | G | A | T | C | T | T | T | C | - | - | - | - | - | - | - | - | - | - | - | - | T | A | A | T | A |
| *P. amboinensis* | A | T | G | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. aphrodite* | - | - | - | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . |
| *P. borneensis* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. braceana* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | C | T | A | - | - | - | - | - | - | - | . | T |
| *P. celebensis* | - | - | - | . | . | . | A | . | . | . | A | T | A | T | T | A | A | T | A | - | - | - | - | - | - | - | . | T |
| *P. chibae* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | C | A | T | A | - | - | - | - | - | - | - | . | T |
| *P. cornu-cervi* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. doweryensis* | - | - | - | . | . | . | T | . | . | . | . | T | A | T | T | A | A | T | - | - | - | - | - | - | - | - | - | - |
| *P. equestris* | - | - | - | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | T | . | . |
| *P. fuscata* | - | - | - | . | C | . | T | . | . | . | . | T | A | T | T | A | A | T | - | - | - | - | - | - | - | - | - | - |
| *P. gibbosa* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | A | - | - | - | - | - | - | - | . | T |
| *P. gigantea* | - | - | - | . | . | . | T | . | . | . | . | T | A | T | T | A | A | T | - | - | - | - | - | - | - | - | - | - |
| *P. inscriptiosinensis* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | - | - | - | - | - | - | . | T | . | . |
| *P. lowii* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | A | - | - | - | - | - | - | - | . | T |
| *P. micholitzii* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. parishii* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | A | - | - | - | - | - | - | - | . | T |
| *P. philippinensis* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | T | T | T | C | T | T | T | C | . | . | T | . | . |
| *P. pulchra* | - | - | - | T | . | G | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. stuartiana* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | T | T | T | C | T | T | T | C | . | . | T | . | . |
| *P. sumatrana* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | A | - | - | - | - | . | T | . | . | . |
| *P. venosa* | A | T | G | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. violaceae* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | A | T | C | - | - | - | - | . | . | T | . | . |
| *P. wilsonii* | - | - | - | . | . | . | . | . | . | . | . | T | A | T | T | A | C | T | A | - | - | - | - | - | - | - | . | T |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **332** | **333** | **334** | **335** | **336** | **337** | **338** | **339** | **340** | **341** | **342** | **343** | **344** | **345** | **346** | **347** | **348** | **349** | **350** | **351** | **352** | **353** | **354** | **355** | **356** | **357** | **358** | **359** |
| *P. amabilis* | A | T | A | T | T | A | T | A | T | T | A | T | T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. amboinensis* | . | . | . | . | . | . | . | C | . | C | T | . | . | C | T | A | A | T | - | - | - | - | - | - | - | - | - | - |
| *P. aphrodite* | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. borneensis* | . | . | . | . | . | . | . | . | . | . | T | - | - | - | - | A | T | T | - | - | - | - | - | - | - | - | - | - |
| *P. braceana* | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. celebensis* | . | . | . | . | . | . | . | T | A | A | T | A | . | G | A | G | T | A | T | T | A | T | A | T | T | A | T | - |
| *P. chibae* | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. cornu-cervi* | . | . | . | . | . | . | . | . | . | . | T | - | - | - | - | A | T | T | - | - | - | - | - | - | - | - | - | - |
| *P. doweryensis* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. equestris* | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. fuscata* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. gibbosa* | . | . | . | A | . | . | . | G | A | G | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. gigantea* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. inscriptiosinensis* | - | . | . | . | . | . | . | C | . | . | T | - | - | C | T | A | T | T | A | A | T | A | T | T | A | T | - | - |
| *P. lowii* | . | . | . | A | . | . | . | G | A | G | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. micholitzii* | . | . | . | . | . | . | . | C | . | C | T | . | . | C | T | A | T | T | - | - | - | - | - | - | - | - | - | - |
| *P. parishii* | . | . | . | A | . | . | . | G | A | G | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. philippinensis* | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. pulchra* | . | . | . | . | . | . | . | C | . | C | T | . | . | C | T | A | T | T | A | A | T | C | T | T | A | T | A | T |
| *P. stuartiana* | . | . | . | . | . | . | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. sumatrana* | T | . | . | . | A | T | . | . | A | . | . | . | . | A | T | A | T | T | A | T | T | A | A | T | A | T | G | - |
| *P. venosa* | . | . | . | . | . | . | . | C | . | C | T | . | . | C | T | A | A | T | - | - | - | - | - | - | - | - | - | - |
| *P. violaceae* | . | . | . | . | . | . | . | . | . | . | T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *P. wilsonii* | . | . | . | . | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **360** | **361** | **362** | **363** | **364** | **365** | **366** | **367** | **368** | **369** | **370** | **371** | **372** | **373** | **374** | **375** | **377** | **378** | **379** | **380** | **381** | **382** | **383** | **384** | **385** | **386** | **387** | **388** |
| *P. amabilis* | - | - | - | - | - | - | - | - | - | - | - | - | A | A | T | A | G | A | G | T | A | A | T | C | T | A | A | A |
| *P. amboinensis* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . | - | . | . | T | . | . | . | T | . | - |
| *P. aphrodite* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. borneensis* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . | - | . | . | T | . | A | . | T | . | - |
| *P. braceana* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. celebensis* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. chibae* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | . | . | . | . | G | . | . | . | . | . | . | . | . |
| *P. cornu-cervi* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | C | - | . | . | T | . | A | . | T | . | - |
| *P. doweryensis* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | T | . | - | . | C | T | A | A | A | - | - | - |
| *P. equestris* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | C | . | . |
| *P. fuscata* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | T | . | - | . | . | T | . | A | A | T | . | - |
| *P. gibbosa* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | C | A | . | A | A | T | . | . | G | . | . | . | . |
| *P. gigantea* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | T | . | - | . | . | T | . | A | A | T | . | - |
| *P. inscriptiosinensis* | - | - | - | - | - | - | - | - | - | - | - | - | . | T | . | . | T | . | - | . | . | T | . | A | . | T | . | - |
| *P. lowii* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | C | A | . | A | A | T | . | . | G | . | . | . | . |
| *P. micholitzii* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . | - | . | . | T | . | A | . | T | . | - |
| *P. parishii* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | C | A | . | A | A | T | . | . | G | . | . | . | . |
| *P. philippinensis* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. pulchra* | T | A | T | C | T | T | T | C | T | A | T | T | . | . | . | . | T | . | - | . | . | T | . | A | . | T | . | - |
| *P. stuartiana* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. sumatrana* | - | - | - | - | - | - | - | - | - | A | G | T | . | . | . | . | A | . | - | . | . | G | . | A | . | G | . | G |
| *P. venosa* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . | - | . | . | T | . | . | . | T | . | - |
| *P. violaceae* | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . | - | . | . | T | . | A | . | T | . | - |
| *P. wilsonii* | - | - | - | - | - | - | - | - | - | - | - | T | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **393** | **397** | **400** | **403** | **404** | **405** | **406** | **407** | **408** | **409** | **410** | **411** | **412** | **413** | **414** | **415** | **416** | **417** | **418** | **419** | **420** | **421** | **422** | **423** | **424** | **440** | **443** | **469** |
| *P. amabilis* | G | A | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | T | A | - | G | T | A | T | G | A |
| *P. amboinensis* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. aphrodite* | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | - | . | . | . | . | . | . |
| *P. borneensis* | T | . | . | A | T | A | G | T | - | - | - | - | - | - | A | T | G | A | G | A | T | A | A | G | G | . | . | C |
| *P. braceana* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. celebensis* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. chibae* | . | G | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. cornu-cervi* | . | . | . | A | T | A | G | T | - | - | - | - | - | - | A | T | G | A | G | A | T | A | A | G | G | . | . | . |
| *P. doweryensis* | . | . | . | A | T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | . | . | . | C | . | . |
| *P. equestris* | . | . | . | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | - | . | . | . | . | . | T |
| *P. fuscata* | . | . | C | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | A | . | . | . | . | . |
| *P. gibbosa* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. gigantea* | . | . | C | A | A | A | T | A | T | G | A | G | T | A | A | T | A | T | . | A | T | A | . | . | . | . | . | . |
| *P. inscriptiosinensis* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. lowii* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . |
| *P. micholitzii* | . | . | . | A | T | A | G | T | - | - | - | - | - | - | A | T | G | A | G | A | T | A | A | G | G | . | . | . |
| *P. parishii* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. philippinensis* | . | . | . | T | A | A | T | A | T | - | - | - | - | - | - | - | - | A | . | . | . | - | . | . | . | . | . | . |
| *P. pulchra* | . | . | . | A | T | A | C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | T | . |
| *P. stuartiana* | . | . | . | T | A | A | T | A | T | - | - | - | - | - | - | - | - | A | . | . | . | A | . | . | . | . | . | . |
| *P. sumatrana* | . | . | . | A | T | C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | C |
| *P. venosa* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. violaceae* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |
| *P. wilsonii* | . | . | . | A | T | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | . | . | . | . | . | . |

**Table 5.** Nucleotide position of polymorphic siteon the *trn*L-F region of *Phalaenopsis* (continued)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Nucleotide Position** | | | | | | | | | | | | | | | | | | |
| **481** | **482** | **483** | **484** | **485** | **486** | **487** | **501** | **502** | **503** | **506** | **519** | **531** | **566** | **586** | **596** | **608** | **612** | **626** |
| *P. amabilis* | A | - | - | - | - | - | - | T | A | G | G | G | C | G | C | G | G | T | C |
| *P. amboinensis* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. aphrodite* | . | - | - | - | - | - | - | . | . | . | . | . | . | . | . | . | . | . | . |
| *P. borneensis* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. braceana* | . | - | - | - | - | - | - | . | . | T | . | . | A | . | A | . | . | . | . |
| *P. celebensis* | . | - | - | - | - | - | - | . | . | . | . | . | . | . | A | T | . | . | T |
| *P. chibae* | . | - | - | - | - | - | - | . | . | T | . | . | . | . | A | . | . | . | . |
| *P. cornu-cervi* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | T | . | C | . |
| *P. doweryensis* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | . | . | . | C | . |
| *P. equestris* | . | - | - | - | - | - | - | . | . | . | . | . | . | . | A | . | . | . | . |
| *P. fuscata* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | . | . | . | C | . |
| *P. gibbosa* | . | - | - | - | - | - | - | . | C | T | C | . | . | A | A | . | . | . | . |
| *P. gigantea* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | . | . | . | C | . |
| *P. inscriptiosinensis* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. lowii* | . | - | - | - | - | - | - | . | . | T | C | . | . | . | A | . | . | . | . |
| *P. micholitzii* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. parishii* | . | - | - | - | - | - | - | . | C | T | C | . | . | A | A | . | . | . | . |
| *P. philippinensis* | . | - | - | - | - | - | - | . | . | . | . | . | . | . | A | . | T | . | . |
| *P. pulchra* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. stuartiana* | . | - | - | - | - | - | - | . | . | . | . | . | . | . | A | . | T | . | . |
| *P. sumatrana* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. venosa* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. violaceae* | . | A | T | G | A | T | A | G | . | T | . | . | . | . | A | . | . | C | . |
| *P. wilsonii* | . | - | - | - | - | - | - | . | . | T | . | A | A | . | A | . | . | . | . |

**Table 6.** Genetic similarity of *Phalaenopsis* based on the *rbc*L marker

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OTUs** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
| **1** | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | 96.74 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | 98.98 | 97.20 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | 96.23 | 98.95 | 96.55 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | 95.77 | 97.27 | 95.45 | 96.78 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** | 98.22 | 97.58 | 98.06 | 97.40 | 96.94 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **7** | 96.60 | 98.36 | 96.91 | 97.75 | 97.41 | 97.74 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **8** | 95.93 | 98.65 | 96.25 | 99.70 | 96.48 | 97.09 | 97.45 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **9** | 92.77 | 94.86 | 93.10 | 95.25 | 94.79 | 93.38 | 94.74 | 95.25 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **10** | 97.06 | 96.40 | 96.60 | 96.36 | 95.15 | 97.50 | 96.27 | 96.06 | 91.92 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **11** | 95.15 | 97.50 | 95.93 | 96.84 | 95.90 | 95.85 | 97.19 | 96.84 | 99.06 | 94.30 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **12** | 94.36 | 95.69 | 93.75 | 95.33 | 94.74 | 94.92 | 96.19 | 95.02 | 91.73 | 95.11 | 93.18 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |
| **13** | 96.18 | 97.85 | 96.50 | 97.53 | 96.68 | 96.89 | 98.02 | 97.53 | 97.50 | 95.38 | 99.52 | 94.78 | 100 |  |  |  |  |  |  |  |  |  |  |  |
| **14** | 96.45 | 99.40 | 96.91 | 99.10 | 96.93 | 97.61 | 98.22 | 98.80 | 94.25 | 96.44 | 97.32 | 95.55 | 97.87 | 100 |  |  |  |  |  |  |  |  |  |  |
| **15** | 95.88 | 96.78 | 95.55 | 96.90 | 97.74 | 96.17 | 96.61 | 96.59 | 94.43 | 95.41 | 95.37 | 94.06 | 96.16 | 96.43 | 100 |  |  |  |  |  |  |  |  |  |
| **16** | 96.29 | 99.26 | 96.75 | 99.70 | 95.94 | 96.72 | 97.63 | 99.40 | 94.55 | 96.26 | 97.18 | 95.24 | 97.41 | 99.26 | 96.75 | 100 |  |  |  |  |  |  |  |  |
| **17** | 95.69 | 96.28 | 94.79 | 95.93 | 96.97 | 96.42 | 96.63 | 95.62 | 92.77 | 96.14 | 94.65 | 98.64 | 95.71 | 96.14 | 95.26 | 95.83 | 100 |  |  |  |  |  |  |  |
| **18** | 97.94 | 97.16 | 97.64 | 96.67 | 96.97 | 98.97 | 97.02 | 96.67 | 93.00 | 97.08 | 95.58 | 94.05 | 96.62 | 96.89 | 96.33 | 96.72 | 95.53 | 100 |  |  |  |  |  |  |
| **19** | 96.30 | 99.26 | 96.76 | 98.95 | 96.78 | 97.46 | 98.08 | 98.65 | 94.10 | 96.30 | 97.17 | 95.39 | 97.71 | 99.56 | 96.28 | 99.11 | 95.99 | 96.75 | 100 |  |  |  |  |  |
| **20** | 97.65 | 96.86 | 97.34 | 96.37 | 96.67 | 98.68 | 97.02 | 96.37 | 92.69 | 96.79 | 95.26 | 94.05 | 96.47 | 96.60 | 96.02 | 96.42 | 95.53 | 99.71 | 96.45 | 100 |  |  |  |  |
| **21** | 96.45 | 99.40 | 97.21 | 99.10 | 96.94 | 97.61 | 98.22 | 98.80 | 94.25 | 96.45 | 97.32 | 95.55 | 97.87 | 99.71 | 96.44 | 99.26 | 96.15 | 96.90 | 99.56 | 96.60 | 100 |  |  |  |
| **22** | 96.44 | 99.71 | 96.90 | 98.95 | 96.97 | 97.28 | 98.07 | 98.65 | 94.86 | 96.10 | 97.50 | 95.53 | 98.15 | 99.40 | 96.48 | 99.26 | 95.98 | 96.86 | 99.26 | 96.56 | 99.40 | 100 |  |  |
| **23** | 96.20 | 99.12 | 96.65 | 98.95 | 96.67 | 97.31 | 97.94 | 98.65 | 94.17 | 96.45 | 97.35 | 95.59 | 97.72 | 99.41 | 96.48 | 99.12 | 96.18 | 96.60 | 99.27 | 96.31 | 99.41 | 99.12 | 100 |  |
| **24** | 96.37 | 97.58 | 96.05 | 97.09 | 98.81 | 97.25 | 97.41 | 96.78 | 94.49 | 95.45 | 95.90 | 94.74 | 96.68 | 97.24 | 97.74 | 97.25 | 96.56 | 97.58 | 97.09 | 97.28 | 97.24 | 97.27 | 96.97 | 100 |

Note: \* Name of samples (OTUs) 1-24 listed in Table 1; highlight blue = fartest related; highlight red = very closely related.

**Table 7.** Genetic similarity of *Phalaenopsis* based on the *trn*L-F marker

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OTUs** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
| **1** | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | 94.49 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | 99.08 | 94.68 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | 93.42 | 98.03 | 93.61 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | 98.45 | 94.07 | 98.66 | 92.63 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** | 98.56 | 92.27 | 98.74 | 91.74 | 98.19 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **7** | 96.74 | 94.26 | 96.92 | 93.19 | 97.54 | 97.83 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **8** | 95.77 | 98.03 | 95.38 | 98.94 | 95.32 | 91.74 | 93.78 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **9** | 94.26 | 91.30 | 94.06 | 90.60 | 94.35 | 89.93 | 93.17 | 94.28 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **10** | 95.56 | 88.85 | 95.17 | 89.28 | 95.07 | 90.17 | 93.84 | 93.85 | 97.78 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **11** | 94.58 | 90.60 | 94.97 | 90.89 | 94.83 | 90.11 | 93.61 | 94.35 | 98.95 | 97.59 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **12** | 97.19 | 93.92 | 96.90 | 92.86 | 97.53 | 96.41 | 96.07 | 95.11 | 95.19 | 95.46 | 95.16 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |
| **13** | 93.90 | 89.64 | 94.85 | 89.49 | 94.39 | 89.51 | 93.22 | 93.20 | 99.15 | 97.44 | 99.44 | 94.85 | 100 |  |  |  |  |  |  |  |  |  |  |  |
| **14** | 96.84 | 93.30 | 97.79 | 92.57 | 97.46 | 93.64 | 95.87 | 94.75 | 94.69 | 93.60 | 94.30 | 96.75 | 94.39 | 100 |  |  |  |  |  |  |  |  |  |  |
| **15** | 97.64 | 93.92 | 97.84 | 92.86 | 97.64 | 96.41 | 96.82 | 95.25 | 95.25 | 95.54 | 95.52 | 99.59 | 95.49 | 97.48 | 100 |  |  |  |  |  |  |  |  |  |
| **16** | 93.23 | 98.75 | 93.42 | 98.94 | 92.63 | 91.07 | 93.19 | 98.94 | 90.25 | 88.39 | 90.38 | 92.86 | 88.83 | 92.09 | 92.86 | 100 |  |  |  |  |  |  |  |  |
| **17** | 97.11 | 93.92 | 97.29 | 92.86 | 96.39 | 96.41 | 96.93 | 92.48 | 92.25 | 92.91 | 93.06 | 99.99 | 92.54 | 96.44 | 99.28 | 92.86 | 100 |  |  |  |  |  |  |  |
| **18** | 93.98 | 87.36 | 93.69 | 87.01 | 93.63 | 87.96 | 92.43 | 92.38 | 97.62 | 98.96 | 97.63 | 94.15 | 97.28 | 92.16 | 94.31 | 86.37 | 91.06 | 100 |  |  |  |  |  |  |
| **19** | 95.06 | 95.89 | 95.05 | 94.10 | 94.73 | 89.89 | 93.47 | 95.86 | 93.51 | 92.22 | 93.53 | 94.58 | 92.65 | 95.18 | 94.67 | 91.58 | 91.25 | 91.92 | 100 |  |  |  |  |  |
| **20** | 94.07 | 86.96 | 93.69 | 86.46 | 93.42 | 87.43 | 92.23 | 92.38 | 97.62 | 98.96 | 97.72 | 94.25 | 97.28 | 92.16 | 94.31 | 85.82 | 90.88 | 99.54 | 91.92 | 100 |  |  |  |  |
| **21** | 96.77 | 92.60 | 96.38 | 92.60 | 96.54 | 93.01 | 94.93 | 95.22 | 94.05 | 93.18 | 93.48 | 96.30 | 92.73 | 97.13 | 96.35 | 94.14 | 94.45 | 91.65 | 95.22 | 91.65 | 100 |  |  |  |
| **22** | 96.50 | 99.99 | 96.69 | 98.03 | 96.48 | 92.27 | 94.85 | 98.59 | 95.20 | 93.90 | 94.93 | 96.21 | 94.29 | 96.32 | 96.19 | 98.75 | 93.92 | 92.71 | 97.60 | 92.80 | 96.05 | 100 |  |  |
| **23** | 94.49 | 99.28 | 94.68 | 98.73 | 94.07 | 93.11 | 94.26 | 98.55 | 91.44 | 89.88 | 91.25 | 93.92 | 90.27 | 94.29 | 93.92 | 98.73 | 93.92 | 88.32 | 95.97 | 87.92 | 93.58 | 99.28 | 100 |  |
| **24** | 98.36 | 93.88 | 98.55 | 92.82 | 99.46 | 98.01 | 98.01 | 92.44 | 91.06 | 91.92 | 91.67 | 96.57 | 90.99 | 96.23 | 96.57 | 92.82 | 96.57 | 89.72 | 91.20 | 89.17 | 94.61 | 93.88 | 93.88 | 100 |

Note: \* Name of samples (OTUs) 1-24 listed in Table 1; highlight blue = fartest related; highlight red = very closely related.

**Table 8.** Genetic similarity of *Phalaenopsis* based on a combined datasets of *rbc*L and *trn*L-F

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OTUs\*** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
| **1** | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | 92.02 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | 99.38 | 92.19 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | 91.79 | 98.53 | 91.96 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | 97.46 | 92.71 | 97.64 | 92.00 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** | 98.21 | 91.80 | 98.37 | 91.82 | 97.58 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **7** | 97.00 | 93.25 | 97.17 | 92.57 | 97.43 | 97.85 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **8** | 93.57 | 98.36 | 93.38 | 99.35 | 93.66 | 91.66 | 93.07 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **9** | 94.38 | 94.52 | 94.32 | 94.40 | 94.96 | 92.99 | 94.54 | 95.57 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **10** | 98.28 | 92.51 | 98.10 | 92.72 | 97.32 | 97.63 | 96.92 | 94.34 | 94.80 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **11** | 93.56 | 94.26 | 93.85 | 94.22 | 94.05 | 91.77 | 93.80 | 95.34 | 98.58 | 93.90 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **12** | 95.39 | 92.25 | 95.27 | 91.62 | 95.74 | 94.68 | 95.84 | 95.83 | 95.01 | 95.27 | 94.04 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |
| **13** | 93.85 | 94.23 | 94.49 | 94.02 | 94.90 | 92.61 | 94.60 | 94.95 | 99.25 | 94.14 | 98.93 | 94.72 | 100 |  |  |  |  |  |  |  |  |  |  |  |
| **14** | 93.48 | 96.48 | 94.12 | 96.06 | 94.92 | 92.22 | 94.40 | 96.36 | 96.25 | 94.19 | 95.59 | 94.16 | 96.55 | 100 |  |  |  |  |  |  |  |  |  |  |
| **15** | 97.01 | 92.69 | 97.20 | 92.23 | 97.44 | 96.31 | 96.93 | 93.77 | 95.26 | 97.12 | 94.15 | 96.85 | 95.13 | 94.59 | 100 |  |  |  |  |  |  |  |  |  |
| **16** | 91.53 | 99.03 | 91.69 | 99.35 | 91.98 | 91.49 | 92.63 | 99.19 | 94.36 | 92.45 | 93.98 | 91.77 | 93.90 | 96.02 | 92.20 | 100 |  |  |  |  |  |  |  |  |
| **17** | 95.47 | 92.80 | 95.63 | 92.18 | 95.30 | 95.56 | 96.69 | 91.92 | 94.43 | 95.60 | 93.59 | 99.26 | 94.34 | 93.45 | 96.45 | 92.32 | 100 |  |  |  |  |  |  |  |
| **18** | 98.46 | 91.44 | 98.34 | 91.20 | 97.17 | 97.91 | 96.20 | 93.25 | 93.69 | 98.05 | 93.32 | 94.55 | 93.10 | 92.77 | 96.18 | 90.96 | 94.20 | 100 |  |  |  |  |  |  |
| **19** | 92.43 | 95.31 | 92.48 | 94.48 | 92.83 | **90.12** | 92.49 | 95.50 | 94.82 | 93.08 | 94.85 | 92.28 | 94.60 | 96.87 | 92.37 | 94.46 | 90.96 | 92.30 | 100 |  |  |  |  |  |
| **20** | 98.34 | 91.09 | 98.17 | 90.77 | 96.92 | 97.51 | 96.08 | 93.13 | 93.57 | 97.94 | 93.26 | 94.61 | 92.98 | 92.65 | 96.05 | 90.54 | 94.11 | 99.61 | 92.19 | 100 |  |  |  |  |
| **21** | 93.23 | 95.86 | 93.05 | 95.76 | 94.33 | 91.29 | 93.85 | 96.38 | 96.36 | 93.94 | 95.24 | 94.08 | 95.86 | 98.13 | 94.13 | 95.48 | 92.83 | 92.58 | 96.19 | 92.46 | 100 |  |  |  |
| **22** | 93.81 | **99.84** | 93.98 | 98.53 | 94.38 | 91.56 | 93.80 | 98.61 | 95.99 | 94.34 | 95.88 | 94.09 | 95.89 | 97.40 | 94.24 | 99.03 | 92.63 | 93.38 | 96.51 | 93.31 | 97.01 | 100 |  |  |
| **23** | 92.44 | 99.19 | 92.61 | 98.69 | 92.60 | 92.77 | 93.18 | 98.53 | 94.53 | 93.10 | 94.80 | 92.22 | 94.39 | 97.29 | 92.49 | 98.94 | 92.77 | 92.08 | 96.10 | 91.73 | 96.50 | 99.19 | 100 |  |
| **24** | 97.49 | 92.80 | 97.65 | 92.17 | 99.10 | 97.74 | 97.62 | 91.91 | 93.50 | 96.96 | 92.41 | 94.69 | 93.49 | 93.45 | 96.88 | 92.15 | 95.72 | 97.02 | 90.73 | 96.61 | 92.66 | 92.63 | 92.68 | 100 |

Note: \* Name of samples (OTUs) 1-24 listed in Table 1; highlight blue = fartest related; highlight red = very closely related.