| list of all transition/tranversion split models |          |          |          |          |          |          |      |
|---|----------|----------|----------|----------|----------|----------|------|
| model number                                    | $r_{ac}$ | $r_{ag}$ | $r_{at}$ | $r_{cg}$ | $r_{ct}$ | $r_{gt}$ | name |
| 0   | 1        | 1        | 1        | 1        | 1        | 1        | JC69 |
| 1   | 1        | 2        | 1        | 1        | 2        | 1        | HKY  |
| 2   | 1        | 2        | 1        | 1        | 2        | 3        |      |
| 3   | 1        | 2        | 1        | 1        | 3        | 1        | TN93 |
| 4   | 1        | 2        | 1        | 1        | 3        | 4        |      |
| 5   | 1        | 2        | 1        | 3        | 2        | 1        |      |
| 6   | 1        | 2        | 1        | 3        | 2        | 3        |      |
| 7   | 1        | 2        | 1        | 3        | 2        | 4        |      |
| 8   | 1        | 2        | 1        | 3        | 4        | 1        |      |
| 9   | 1        | 2        | 1        | 3        | 4        | 3        |      |
| 10  | 1        | 2        | 1        | 3        | 4        | 5        |      |
| 11  | 1        | 2        | 3        | 1        | 2        | 1        |      |
| 12  | 1        | 2        | 3        | 1        | 2        | 3        |      |
| 13  | 1        | 2        | 3        | 1        | 2        | 4        |      |
| 14  | 1        | 2        | 3        | 1        | 4        | 1        |      |
| 15  | 1        | 2        | 3        | 1        | 4        | 3        |      |
| 16  | 1        | 2        | 3        | 1        | 4        | 5        |      |
| 17  | 1        | 2        | 3        | 3        | 2        | 1        | K81  |
| 18  | 1        | 2        | 3        | 3        | 2        | 3        |      |
| 19  | 1        | 2        | 3        | 3        | 2        | 4        |      |
| 20  | 1        | 2        | 3        | 3        | 4        | 1        | TIM  |
| 21  | 1        | 2        | 3        | 3        | 4        | 3        |      |
| 22  | 1        | 2        | 3        | 3        | 4        | 5        |      |
| 23  | 1        | 2        | 3        | 4        | 2        | 1        |      |
| 24  | 1        | 2        | 3        | 4        | 2        | 3        |      |
| 25  | 1        | 2        | 3        | 4        | 2        | 4        |      |
| 26  | 1        | 2        | 3        | 4        | 2        | 5        | TVM  |
| 27  | 1        | 2        | 3        | 4        | 5        | 1        |      |
| 28  | 1        | 2        | 3        | 4        | 5        | 3        |      |
| 29  | 1        | 2        | 3        | 4        | 5        | 4        |      |
| 30  | 1        | 2        | 3        | 4        | 5        | 6        | GTR  |