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(54) Title: DNA POLYMERASES WITH INCREASED 3'-MISMATCH DISCRIMINATION

FIGURE 1

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                                   *
Z05    EEEVFRLAGH P FN L N S R D QL E  R  V  LF D  E  LRLPALGKT (SEQ ID NO:12)
Taq    EAEVFRLAGH P FN L N S R D QL E  R  V  LF D  E  LGLPAIGKT (SEQ ID NO:13)
Tfi    EAEVHRLAGH P FN L N S R D QL E  R  V  LF D  E  LGLPPIGKT (SEQ ID NO:14)
Tfl    EEEVFRLAGH P FN L N S R D QL E  R  V  LF D  E  LGLPAIGKT (SEQ ID NO:15)
Sps17  EAEVHRLAGH P FN L N S R D QL E  R  V  LF D  E  LGLPPIGKT (SEQ ID NO:16)
Tth    EEEVFRLAGH P FN L N S R D QL E  R  V  LF D  E  LRLPALGKT (SEQ ID NO:17)
Tca    EEEVFRLAGH P FN L N S R D QL E  R  V  LF D  E  LRLPALGKT (SEQ ID NO:18)
Tma    AEEIYRIAGE P FN I N S P K QV S  R  I  LF E  K  LGIKPRGKT (SEQ ID NO:19)
Tne    AEKIYQIAGE P FN I N S P K QV S  N  I  LF E  K  LGIKPRGKT (SEQ ID NO:20)
Taf    KEKVFEIAGE T FN L N S S T QV A  Y  I  LF E  K  LNIAPY-KK (SEQ ID NO:21)
Dra    ESQIHEYAGE E FH I R S P K QL E  T  V  LY D  K  LELASSKKT (SEQ ID NO:23)
Bst    ERRIYELAGQ E FN I N S P K QL G  T  V  LF D  K  LQLPVLKKT (SEQ ID NO:24)
Bca    EQRIYELAGQ E FN I N S P K QL G  V  I  LF E  K  LQLPVLKKS (SEQ ID NO:25)
       -------AGX1X2FX3X4X5X6X7X8QX9X10X11X12LX13X14X15L---------(SEQ ID NO:26)
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(57) Abstract: Disclosed are mutant DNA polymerases having increased 3 '-mismatch discrimination relative to a corresponding, unmodified polymerase. The mutant polymerases are useful in a variety of disclosed primer extension methods. Also disclosed are related compositions, including recombinant nucleic acids, vectors, and host cells, which are useful, e.g., for production of the mutant DNA polymerases.

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