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(54) Title: METHOD

(57) Abstract: A method for enriching the GC base pair content of a DNA molecule the method comprising the steps of (a) providing a DNA template molecule in which at least some of the A residues are base paired with U residues and (b) replicating the DNA template molecule provided in step (a) under conditions in the replication reaction medium in which at least some of the U residues base pair with a G residue. Typically, the DNA template molecule in (a) is produced by replicating a first template DNA molecule in the presence of dUTP so that at least some of the T residues of the first template are replaced by U residues to form a second template molecule. Thus, a preferred method comprises the steps of (1) providing a first template DNA molecule, (2) replicating the first template DNA molecule in the presence of dUTP so that at least some of the T residues of the first template are replaced by U residues to form a second template molecule and (3) replicating the DNA template molecule produced in step (2) under conditions in the replication reaction medium in which at least some of the U residues base pair with a G residue. The invention also includes a method for making a mutant polypeptide with altered properties compared to the polypeptide encoded by a DNA molecule, the method comprising (a) providing a DNA molecule encoding a polypeptide of interest, (b) enriching the GC base pair content of the DNA molecule according to the method set out above, (c) expressing the polypeptide encoded by the DNA molecule whose GC base pair content has been enriched and (d) selecting a polypeptide with altered properties. The invention also includes A mutant A1bD polypeptide wherein Ser40 has been replaced by another amino acid residue.

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