

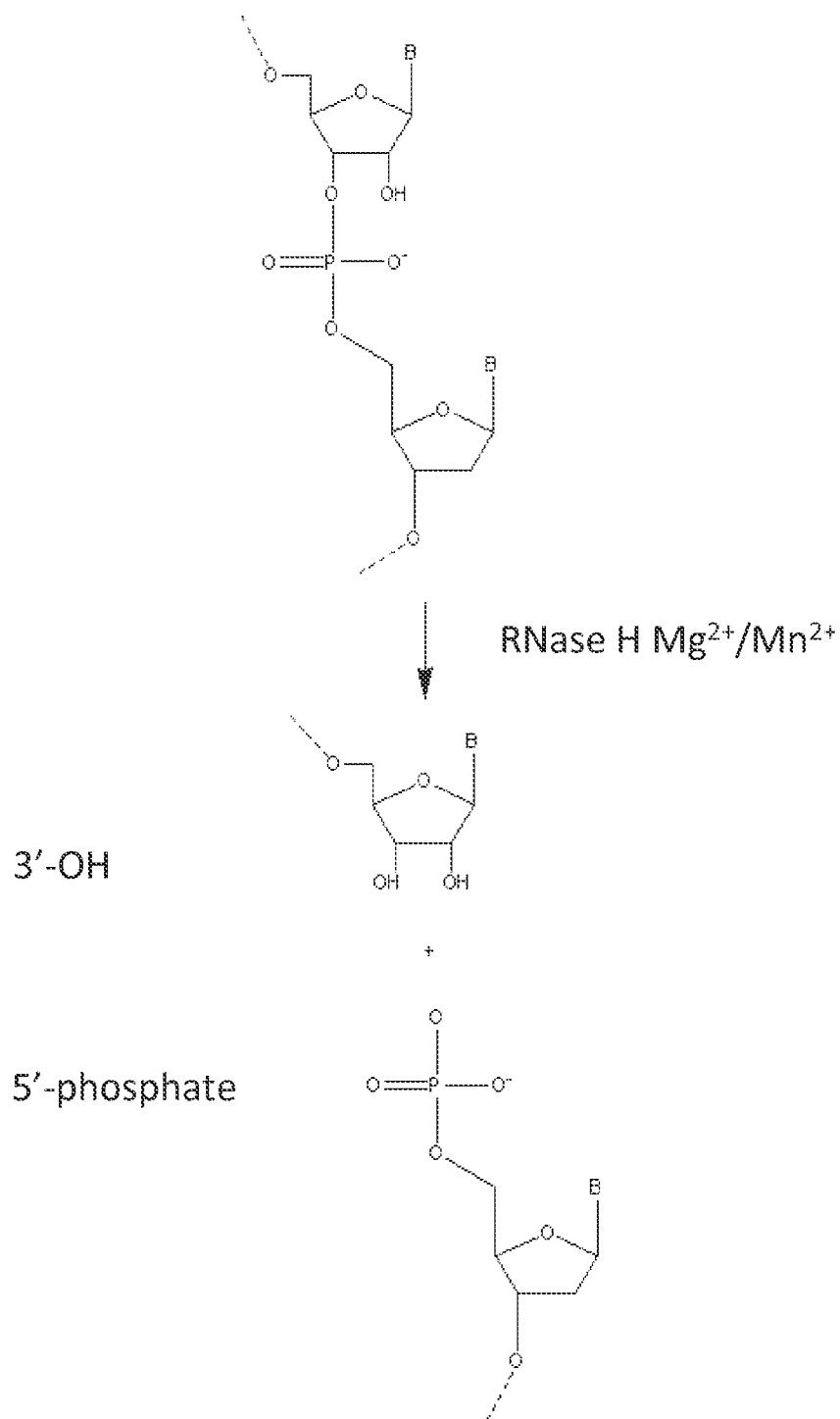


FIG. 1

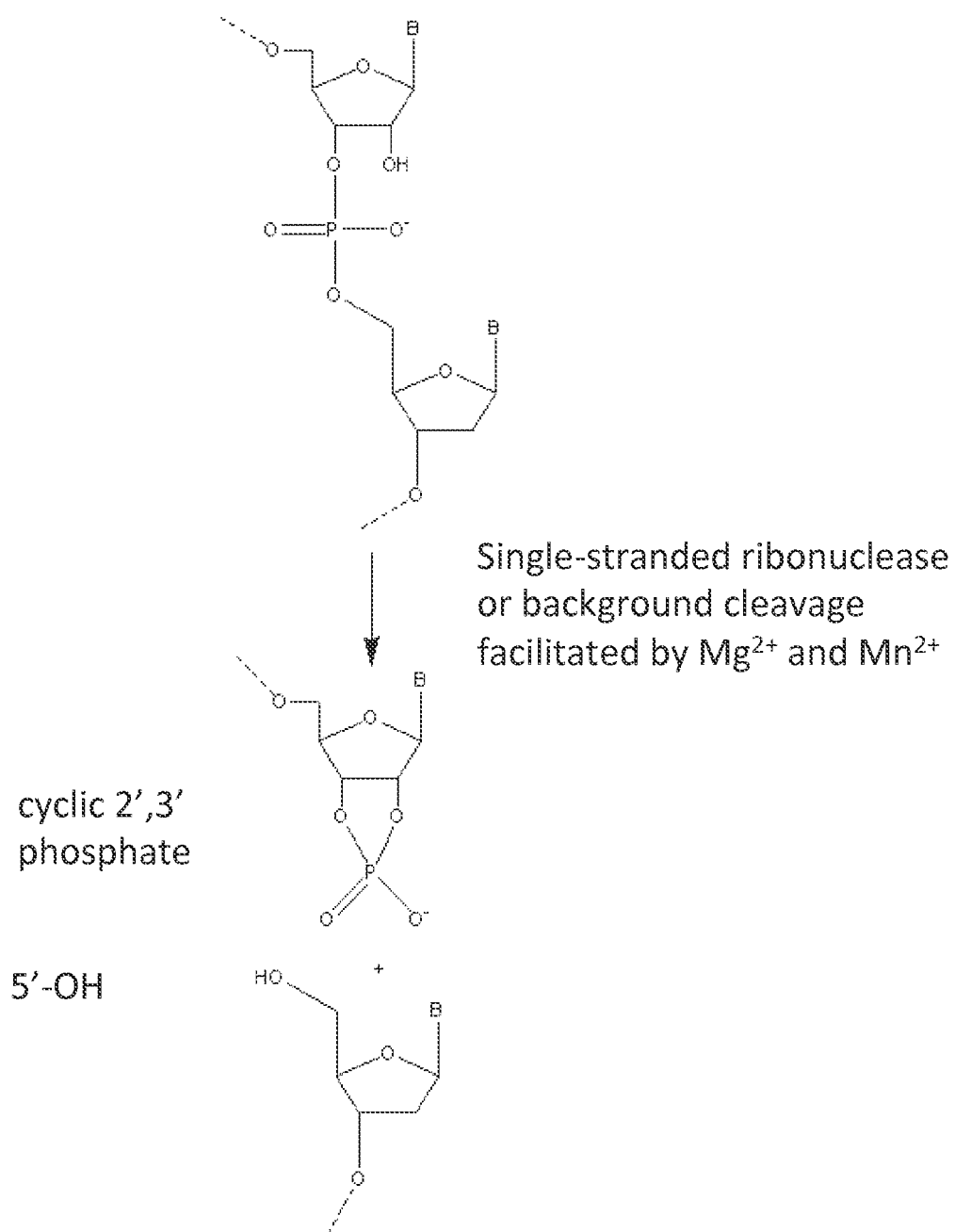


FIG. 2

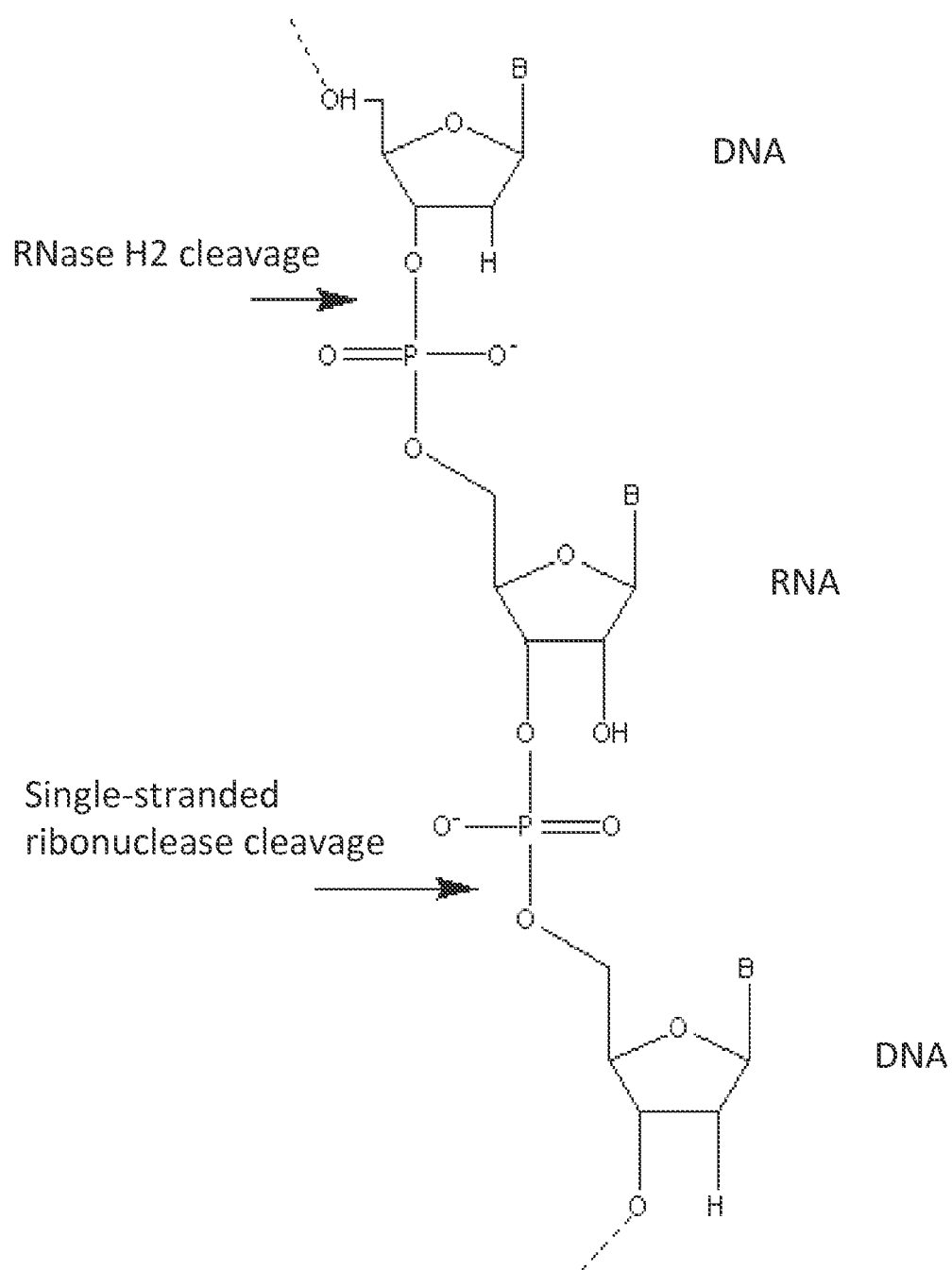


FIG. 3

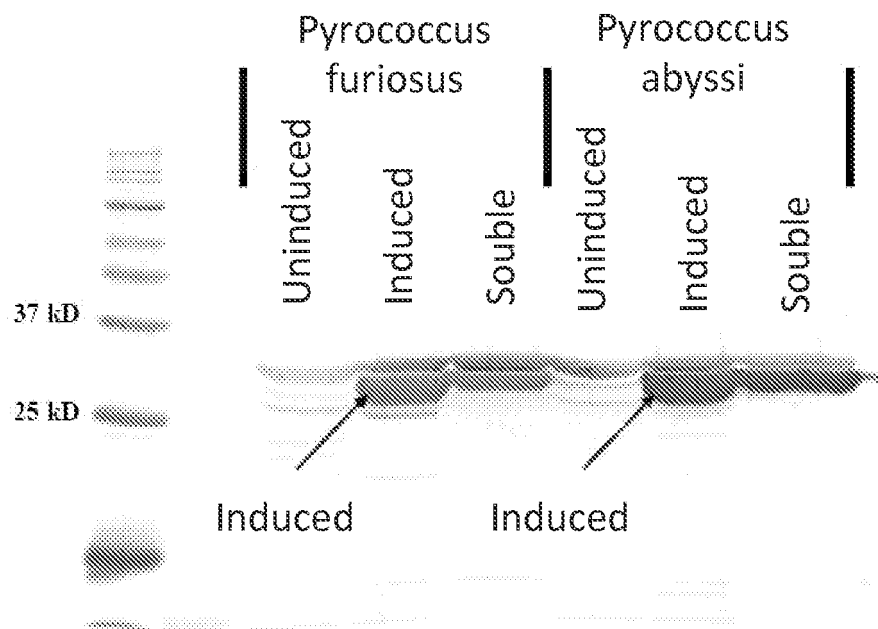


FIG. 4A

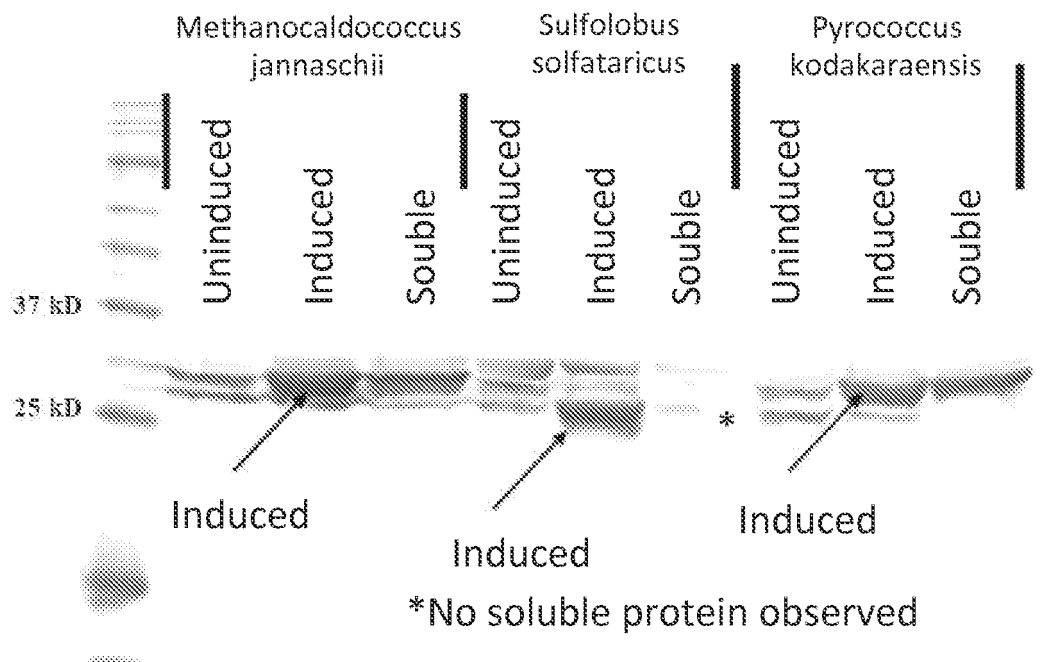


FIG. 4B

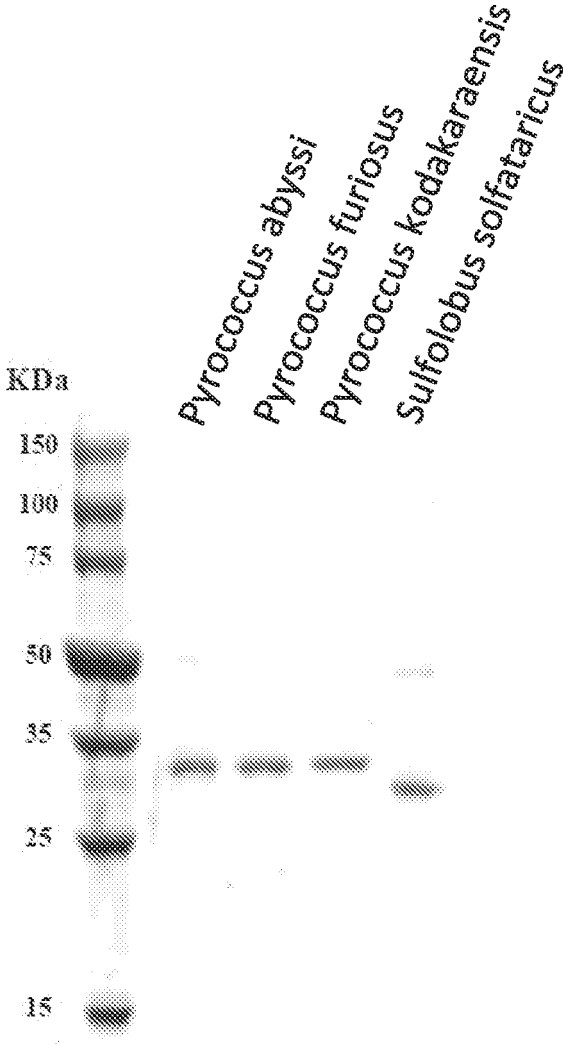


FIG. 5

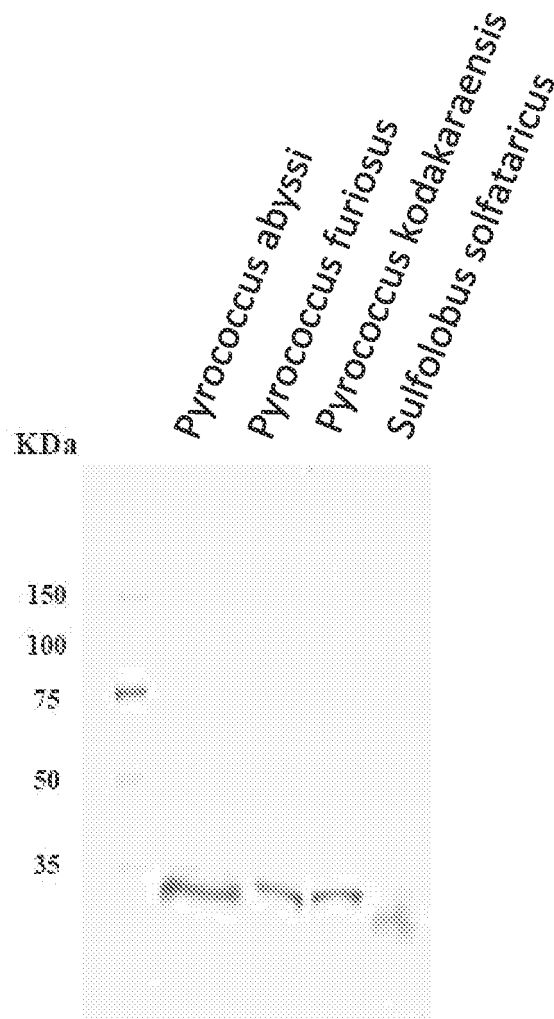


FIG. 6

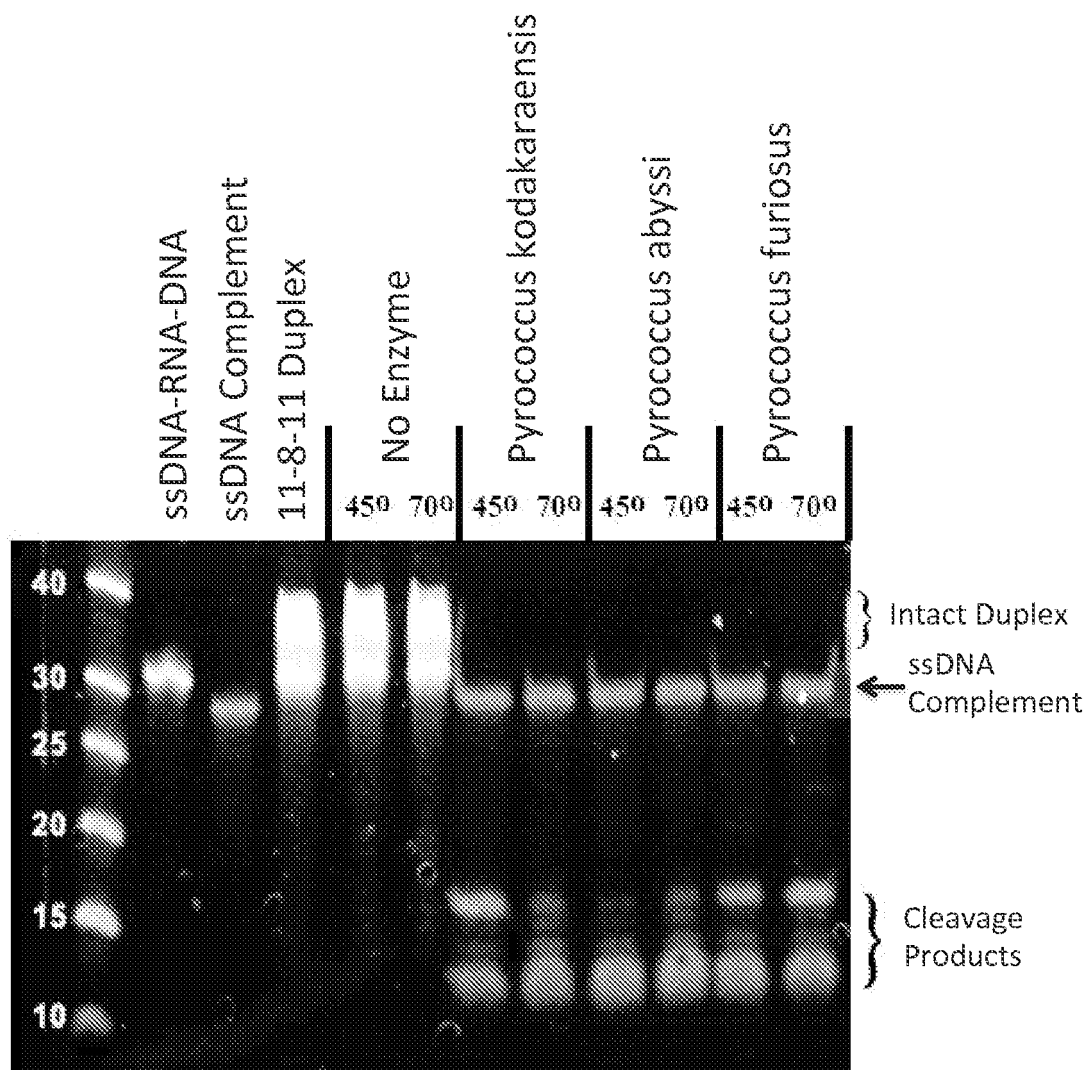


FIG. 7

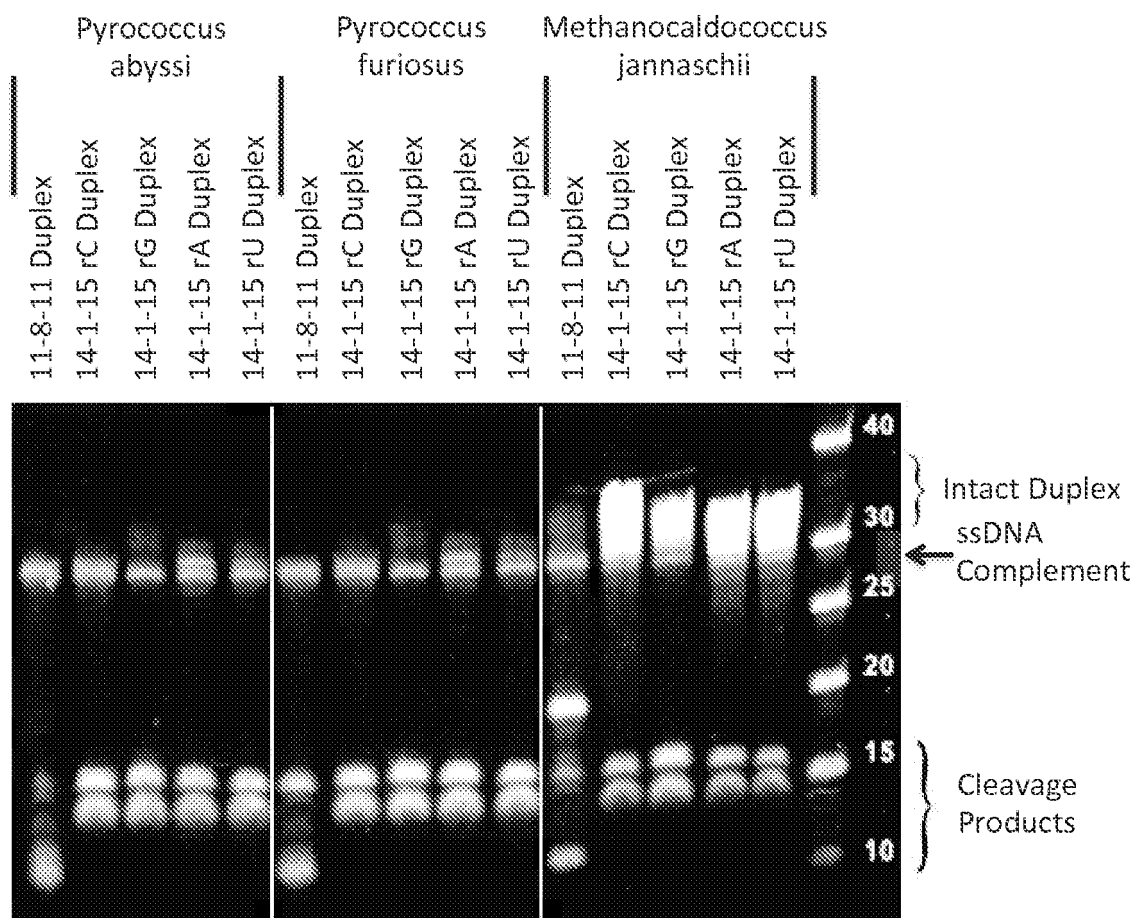


FIG. 8A

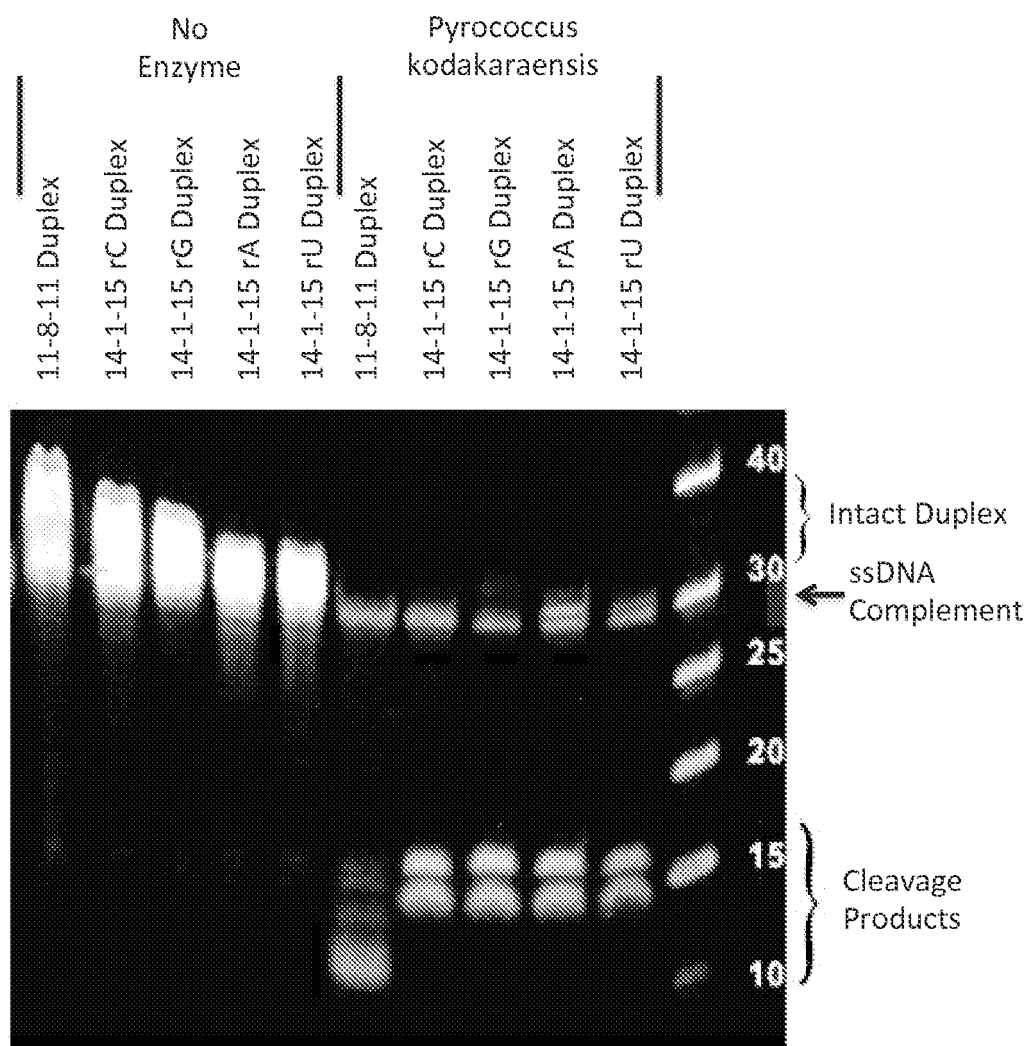


FIG. 8B

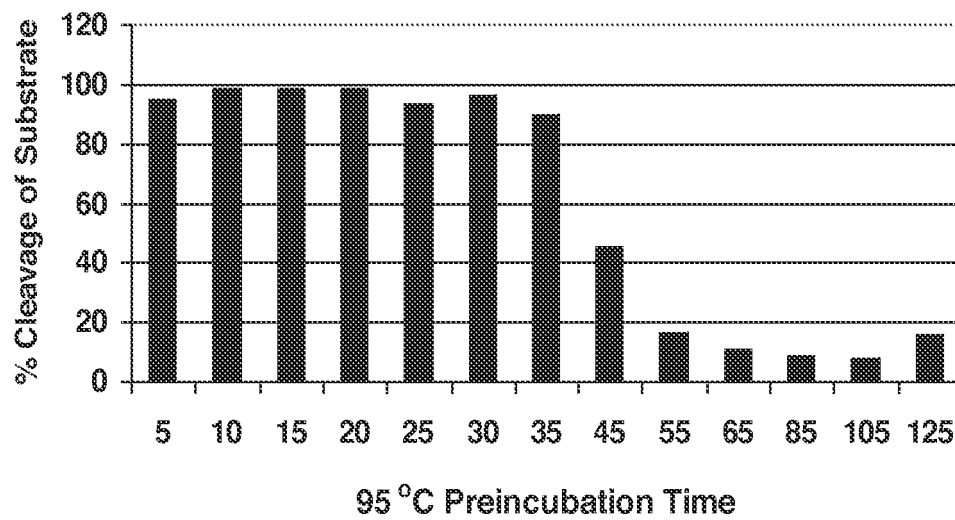


FIG. 9

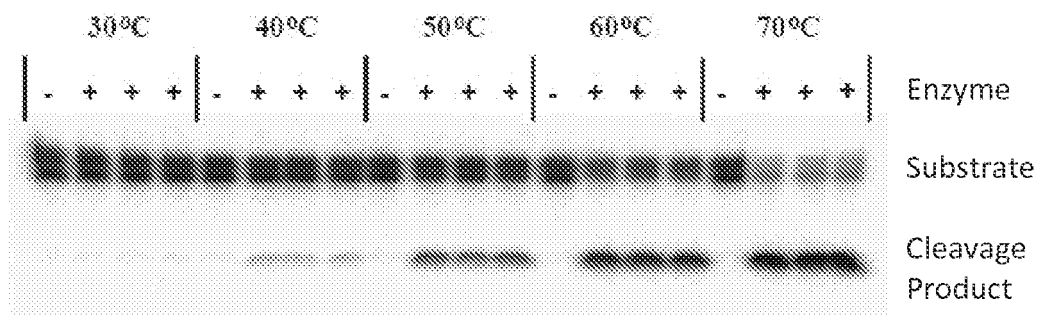


FIG. 10

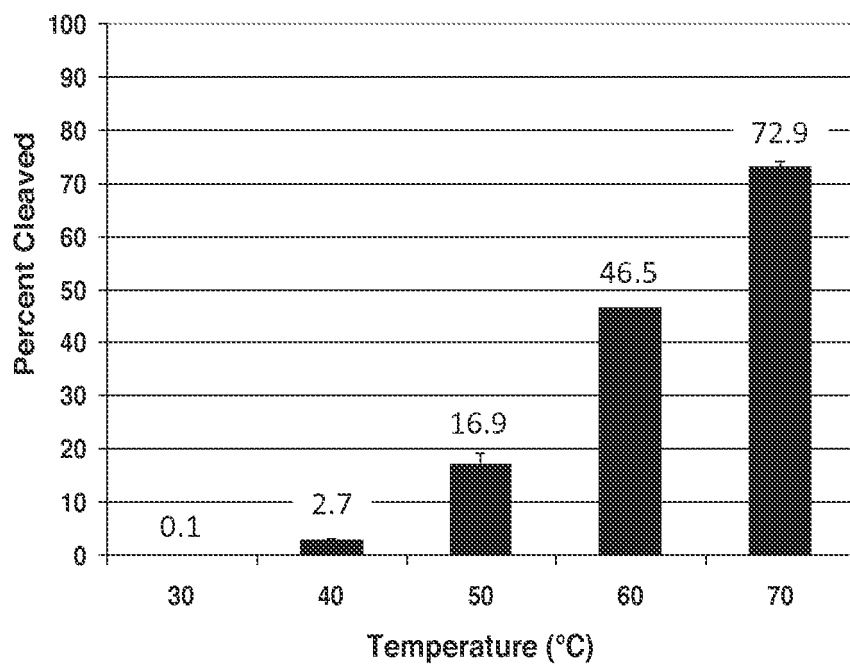


FIG. 11

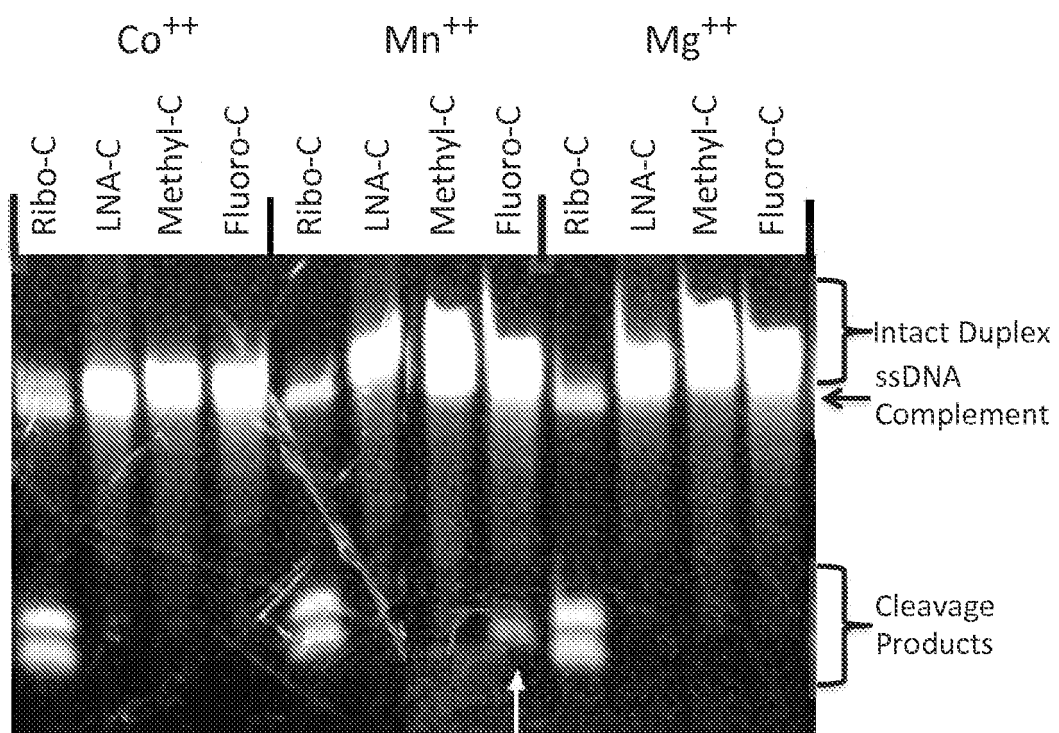


FIG. 12

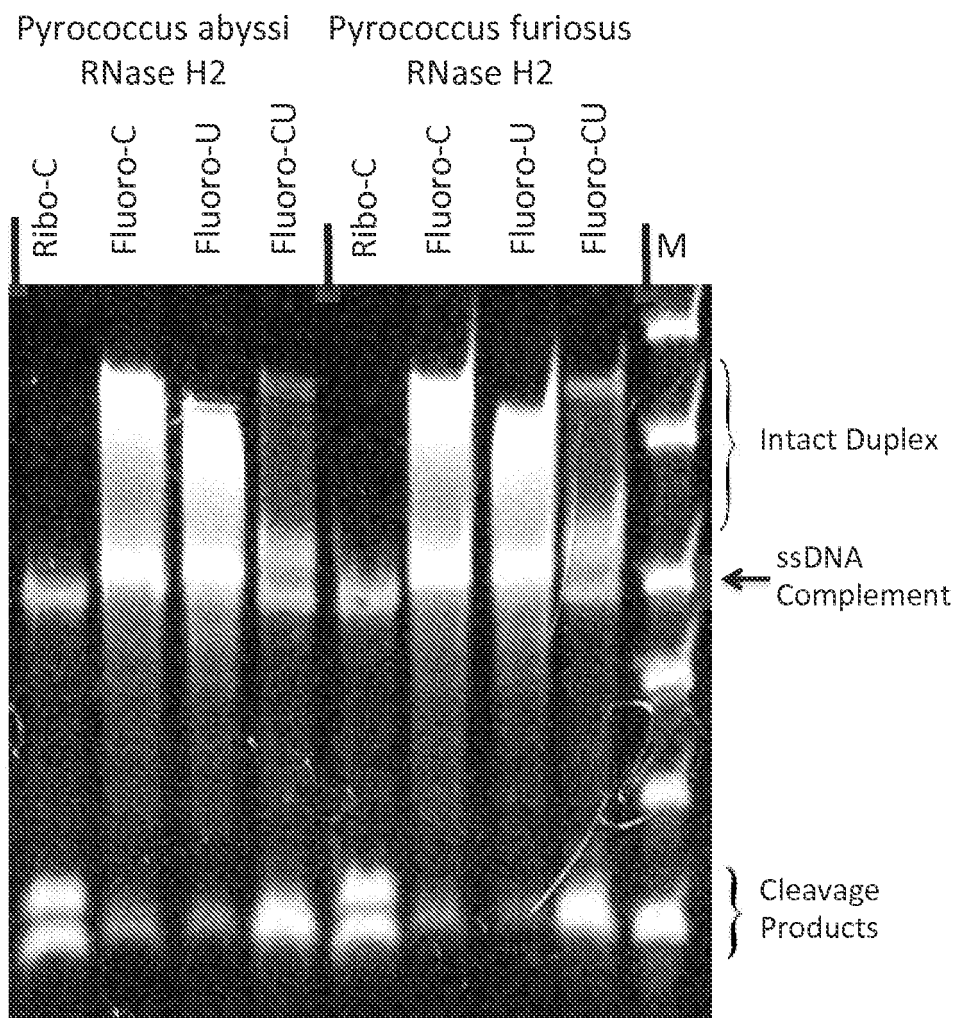


FIG. 13

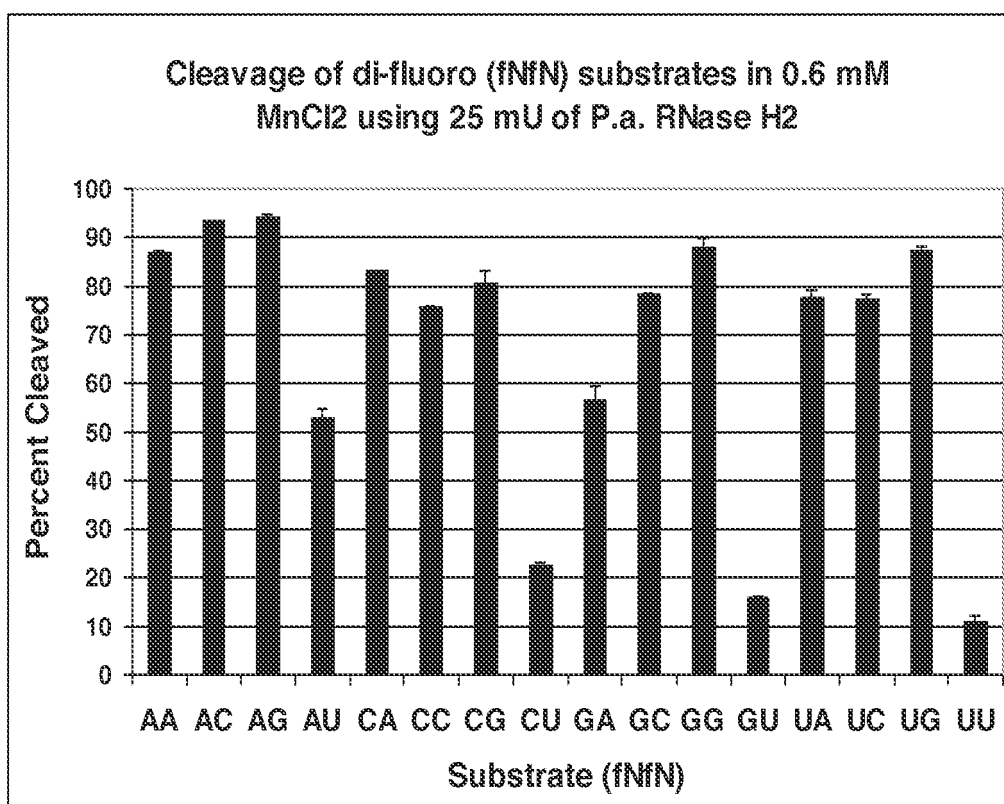


FIG. 14

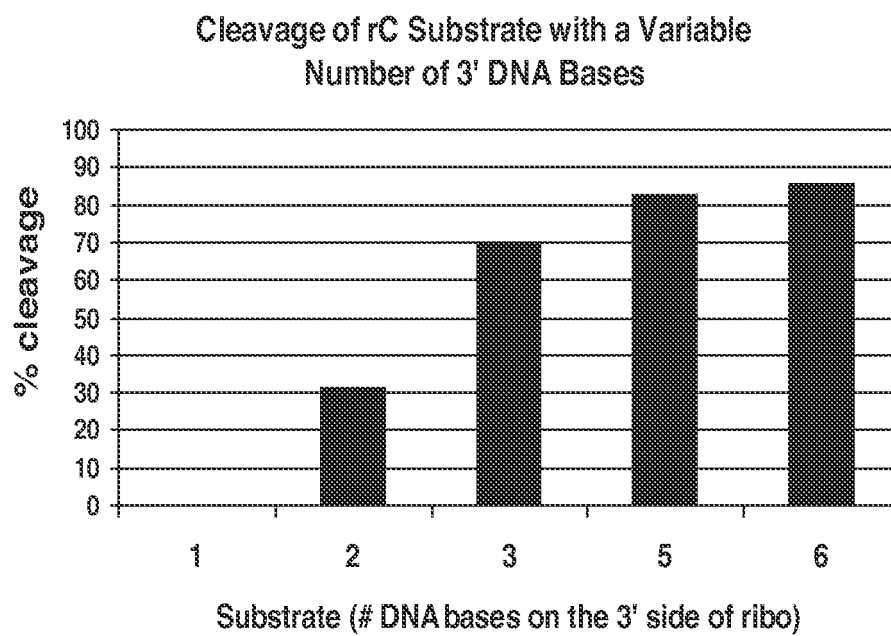


FIG. 15

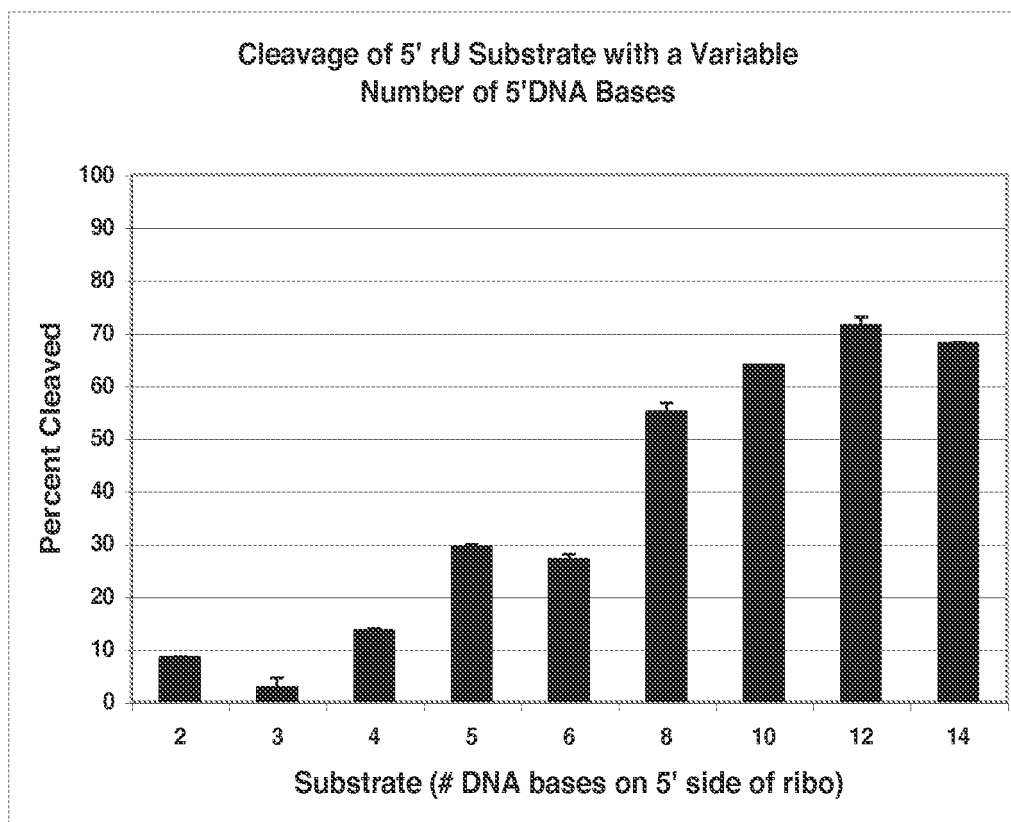


FIG. 16

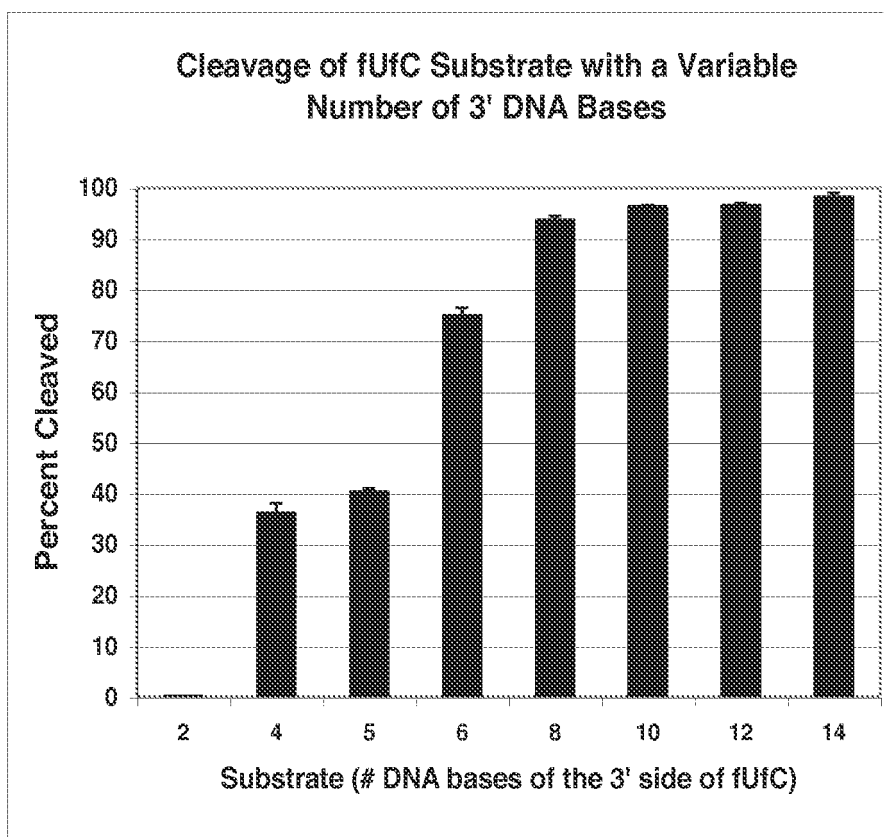


FIG. 17

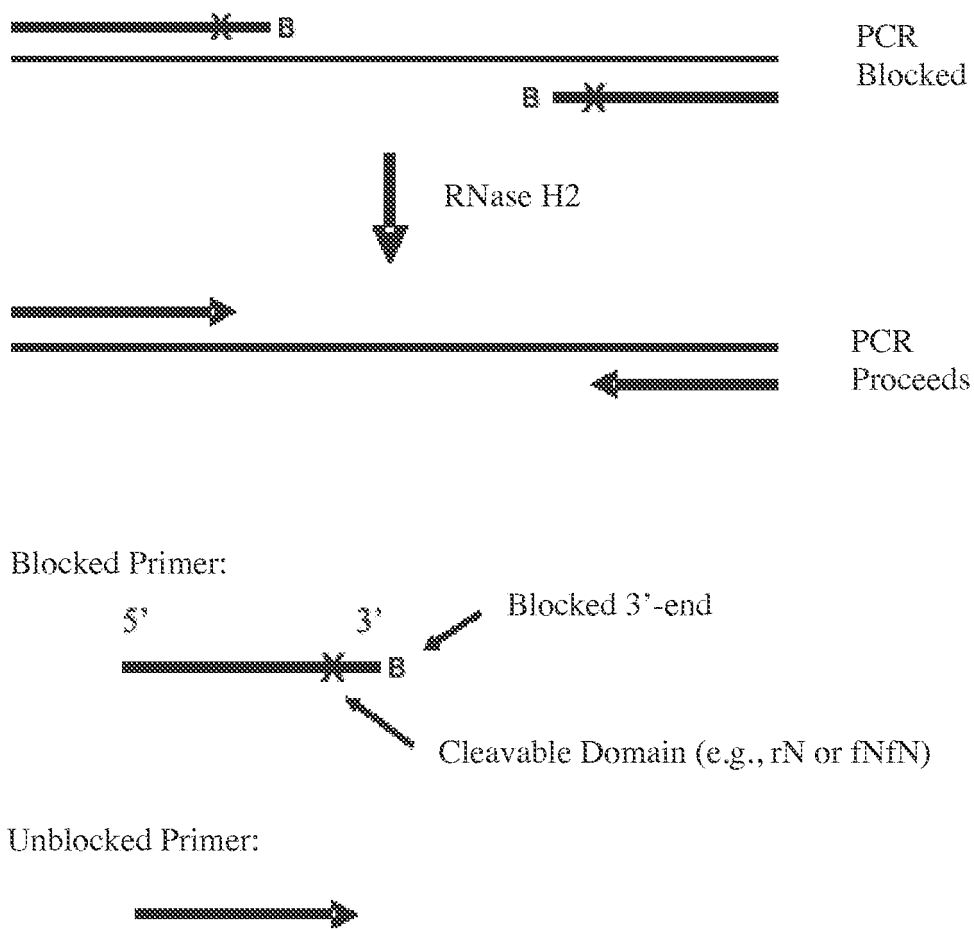


FIG. 18

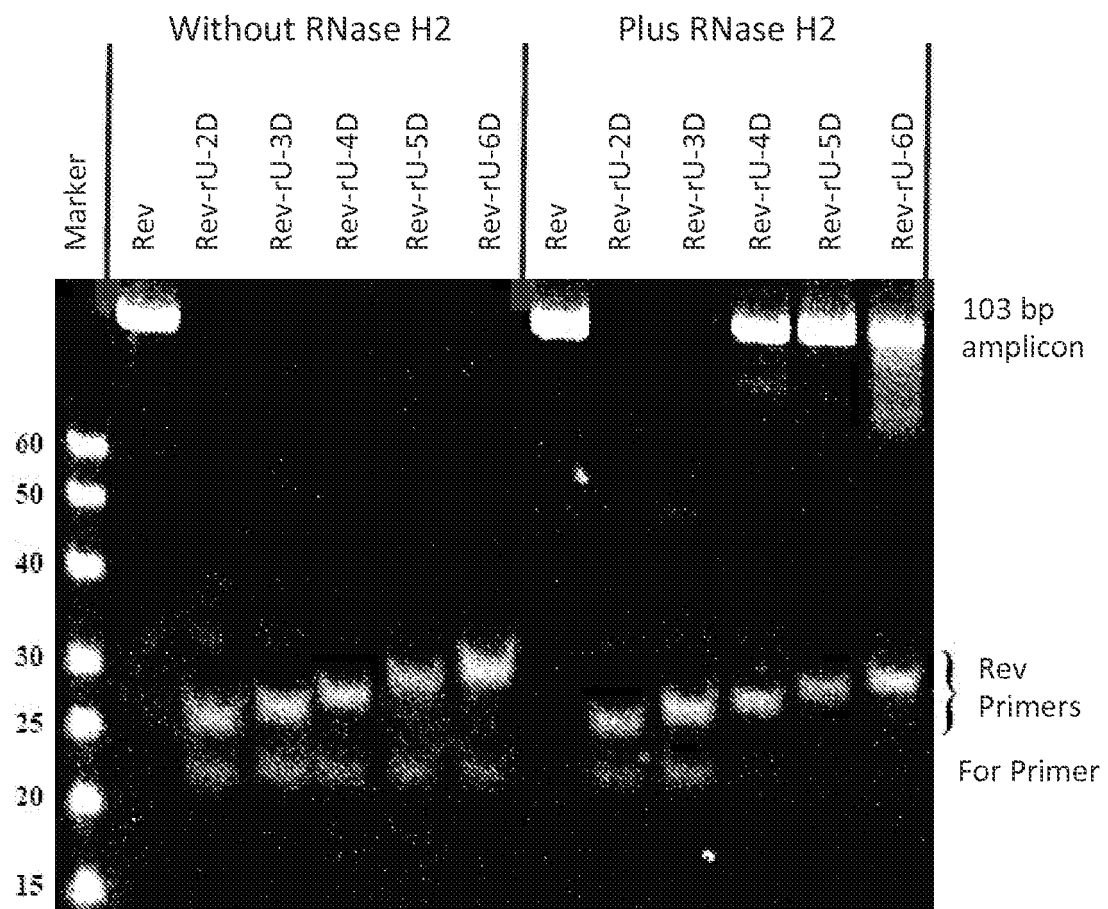


FIG. 19

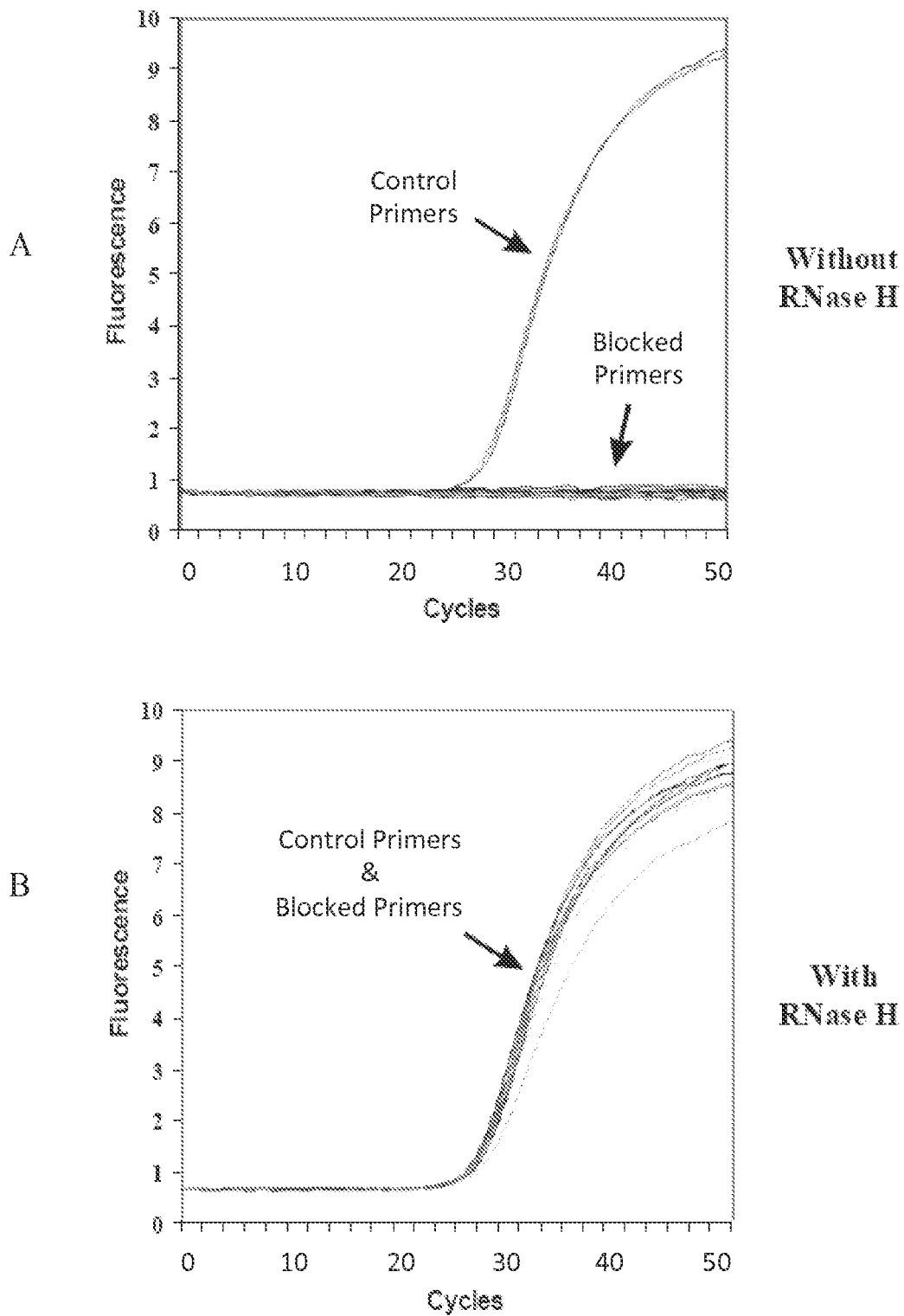


FIG. 20

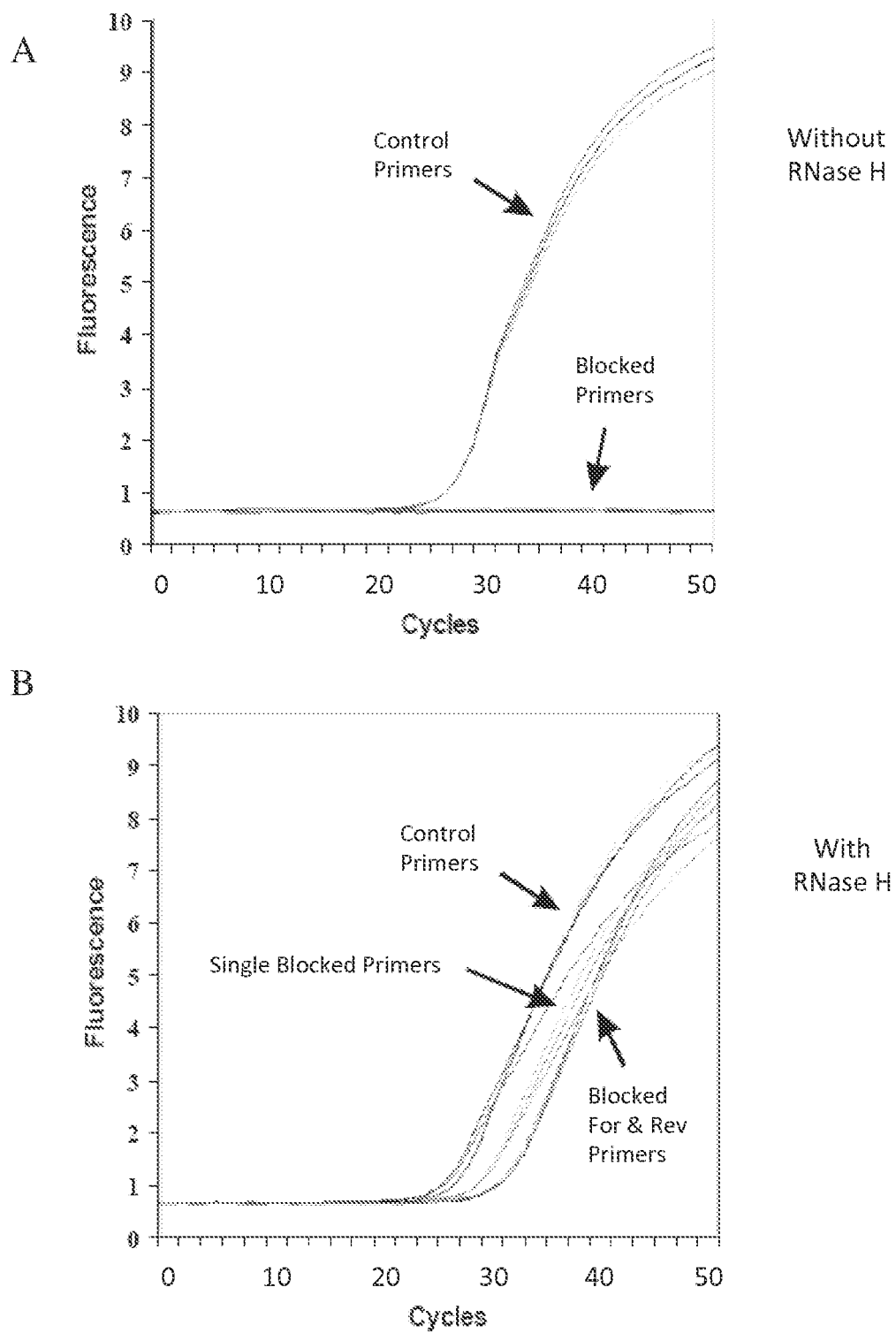


FIG. 21

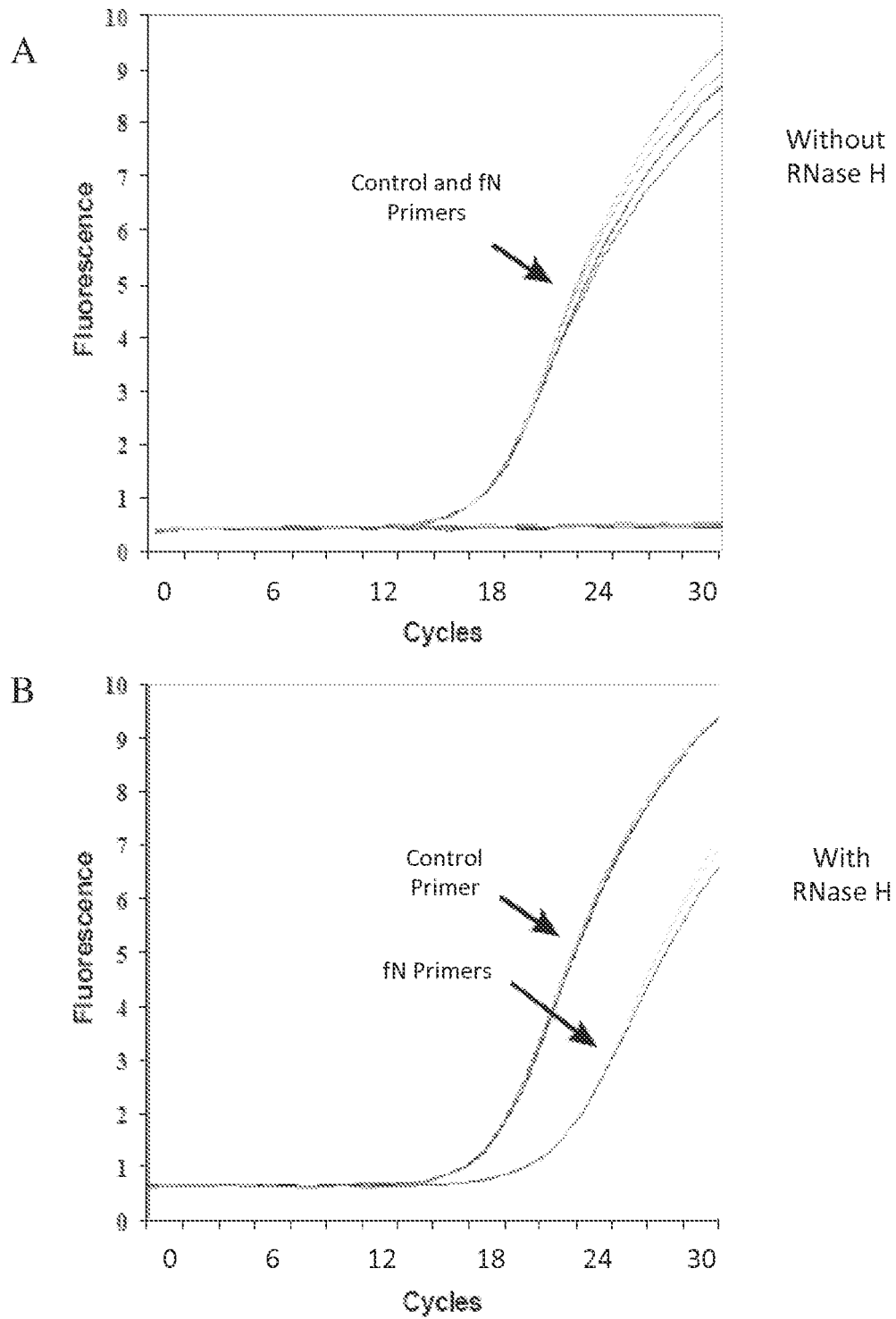


FIG. 22

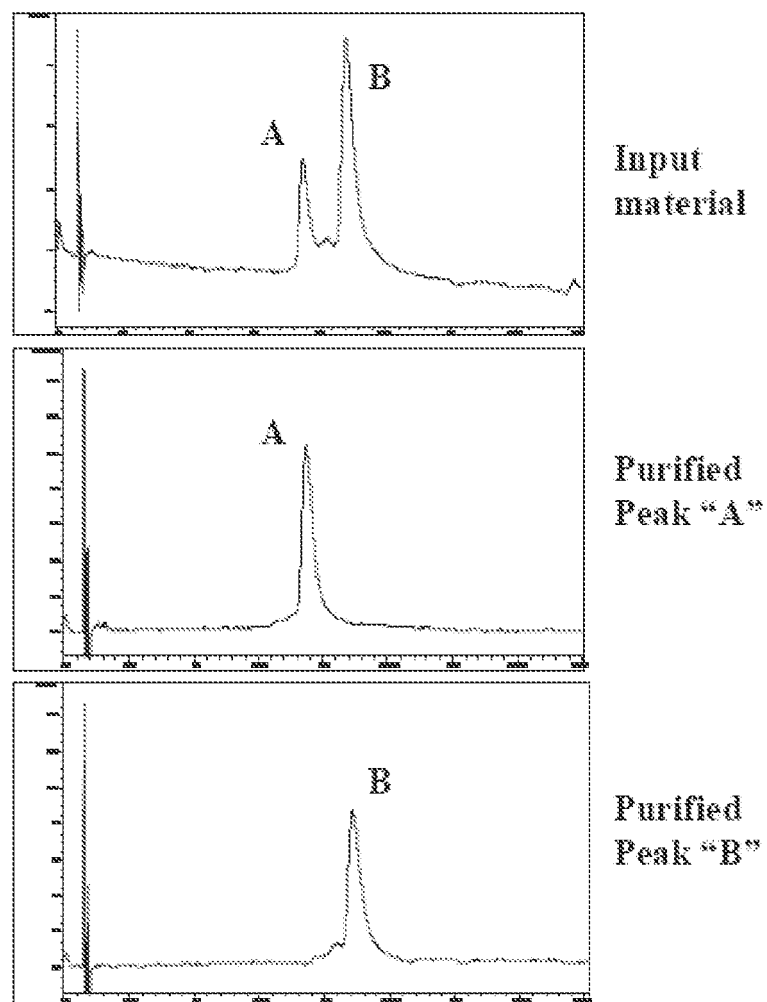
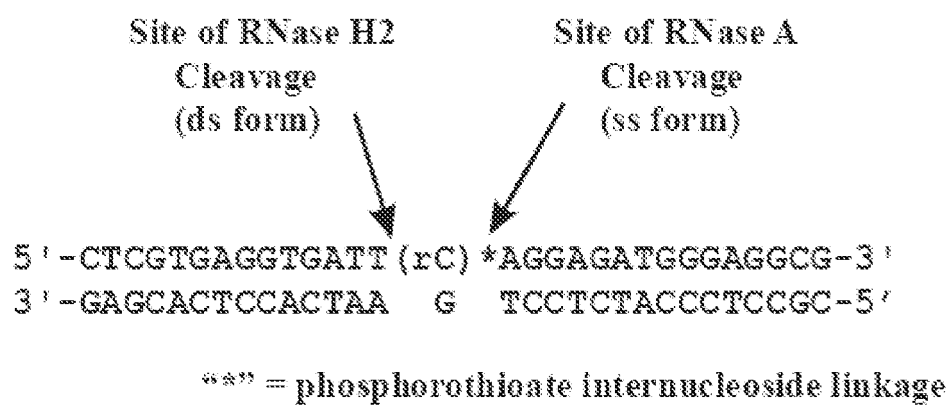


FIG. 23



Sp isomer = RNase A resistant, RNase H2 susceptible
 Rp isomer = RNase A susceptible, RNase H2 resistant

FIG. 24

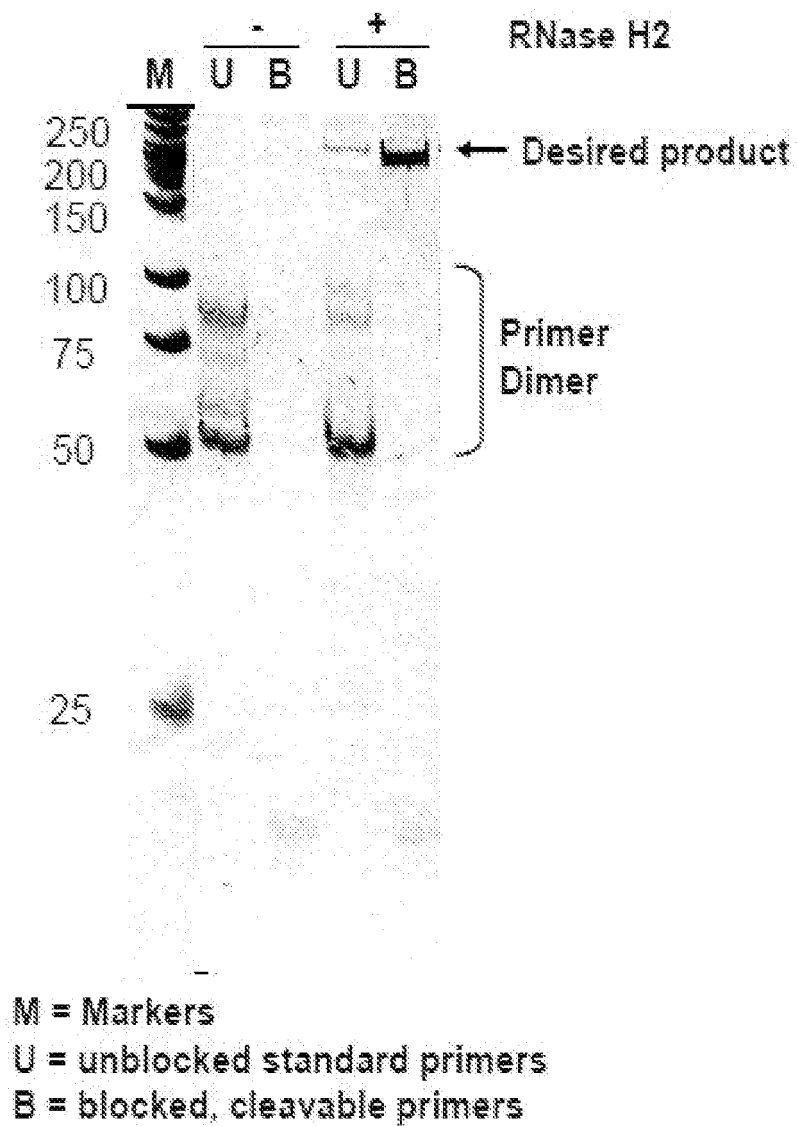


FIG. 25

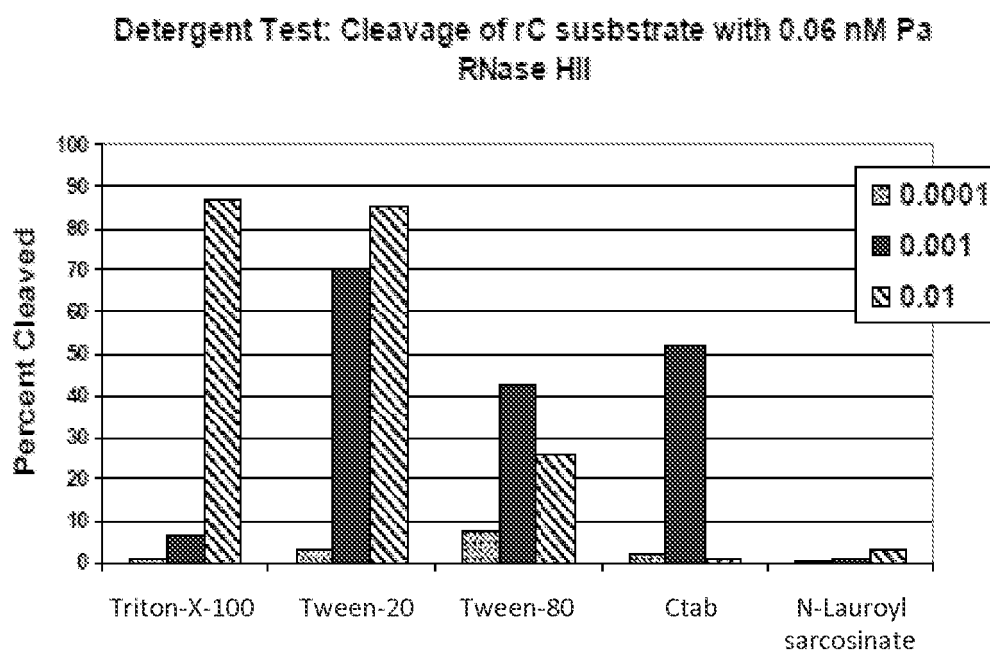


FIG. 26

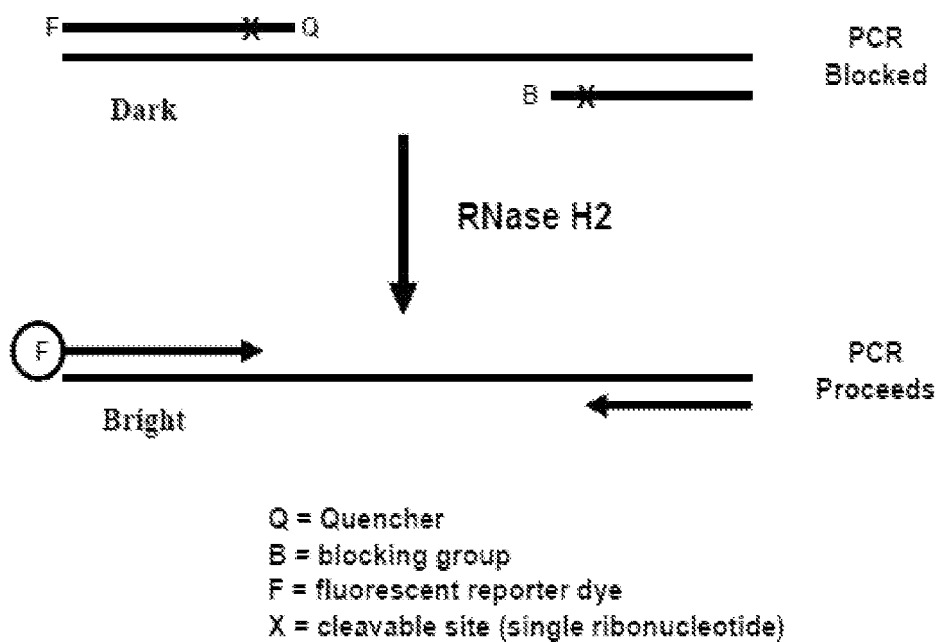


FIG. 27

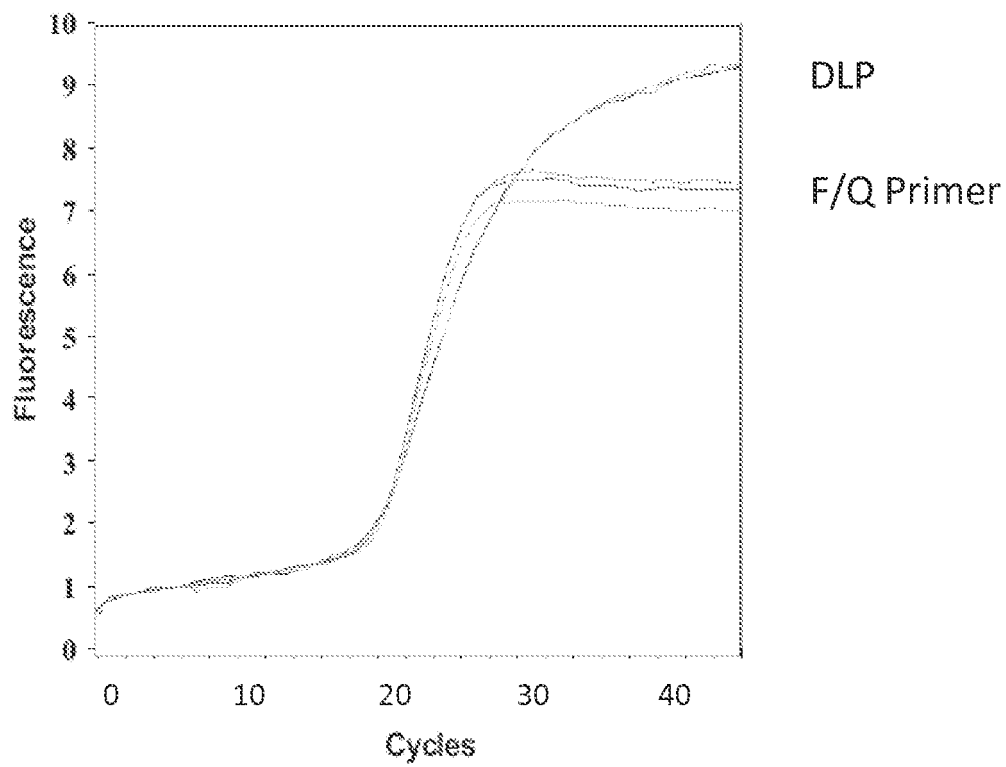


FIG. 28

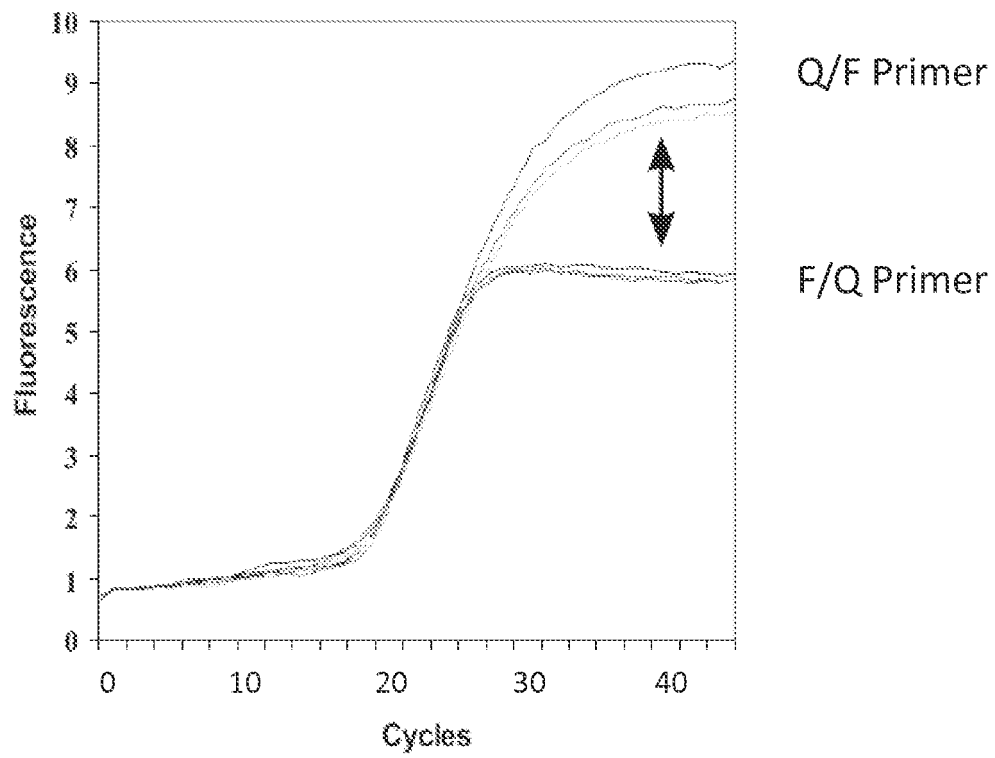


FIG. 29

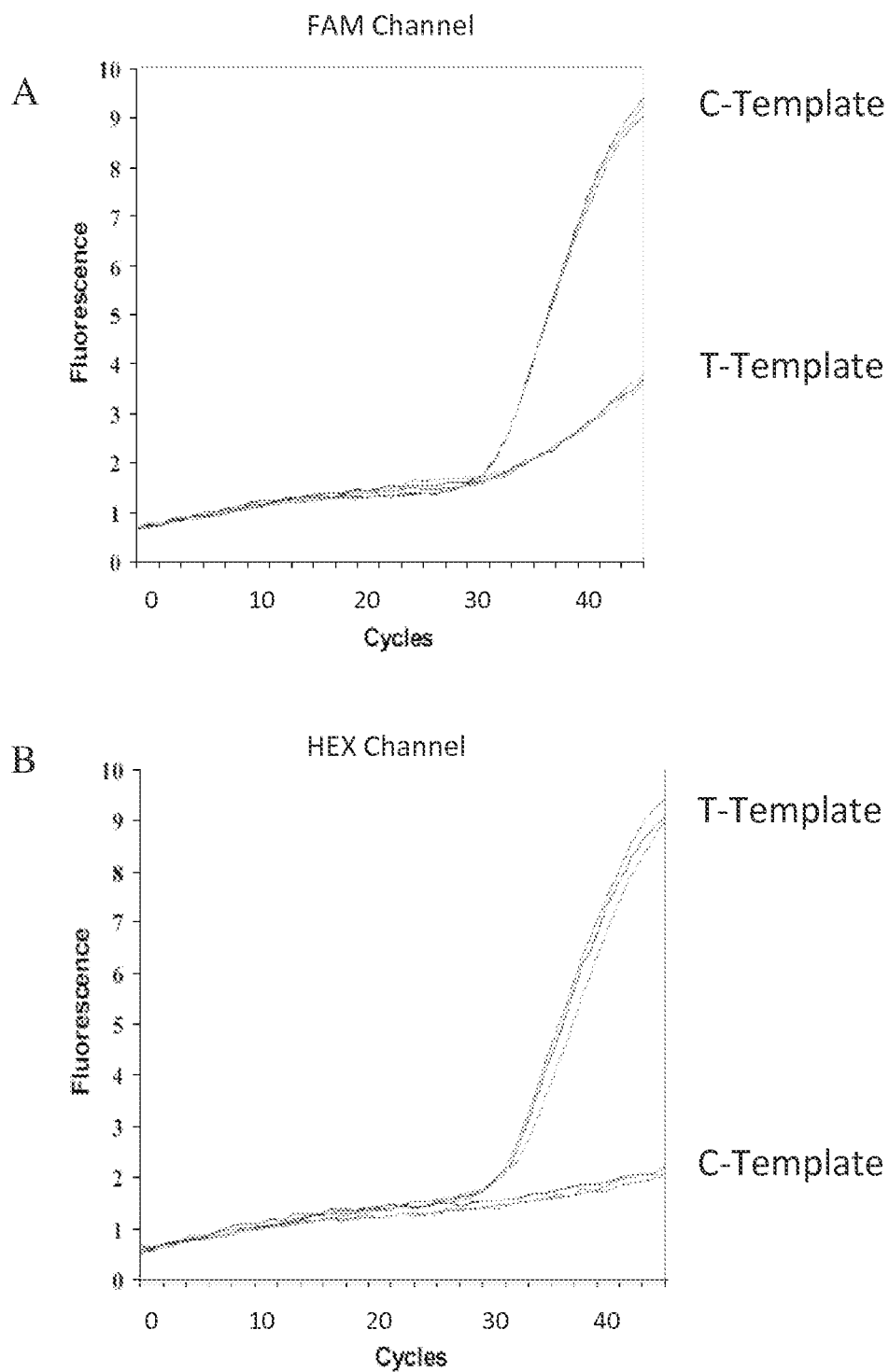
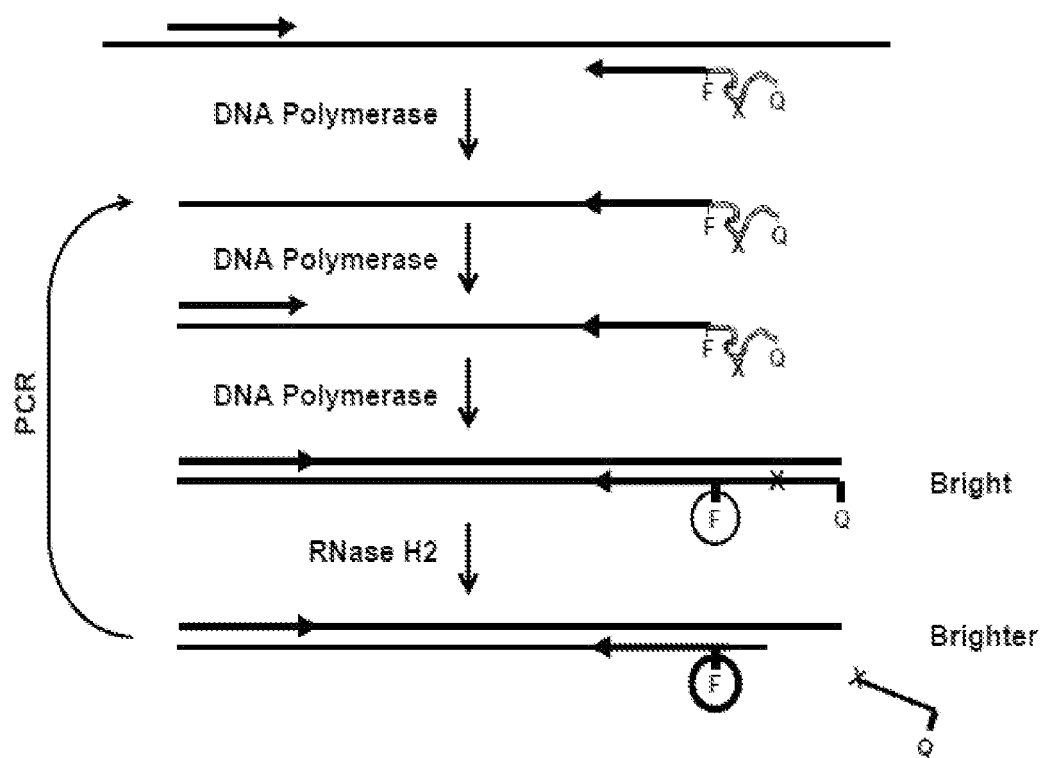


FIG. 30

Fluorescent-Quenched Template (FQT) Probes



F = Fluorescent Reporter dye
 Q = Quencher group
 X = cleavable group (ribonucleotide)

FIG. 31

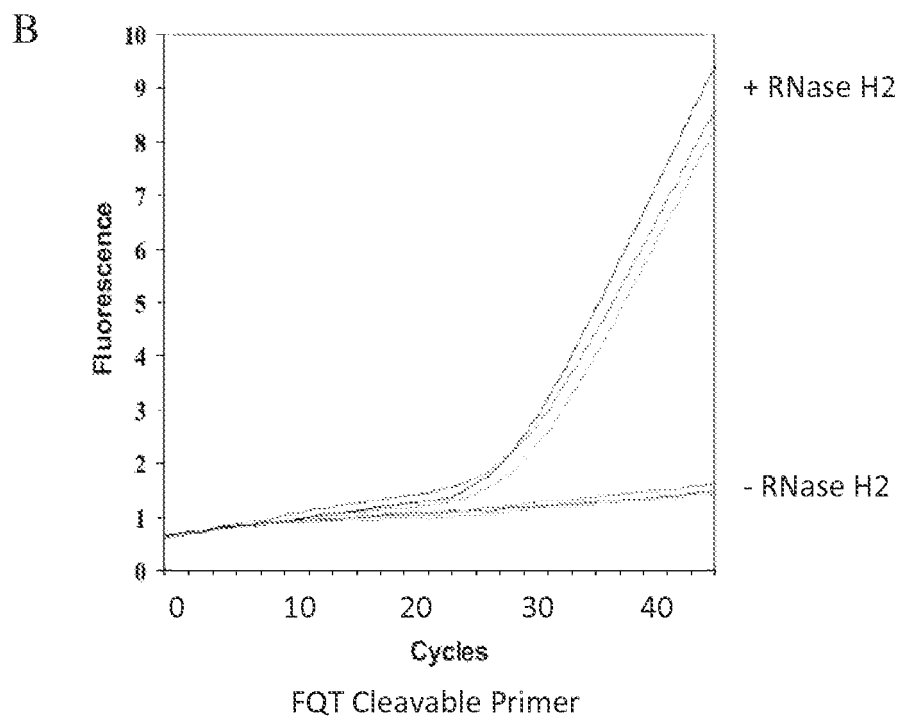
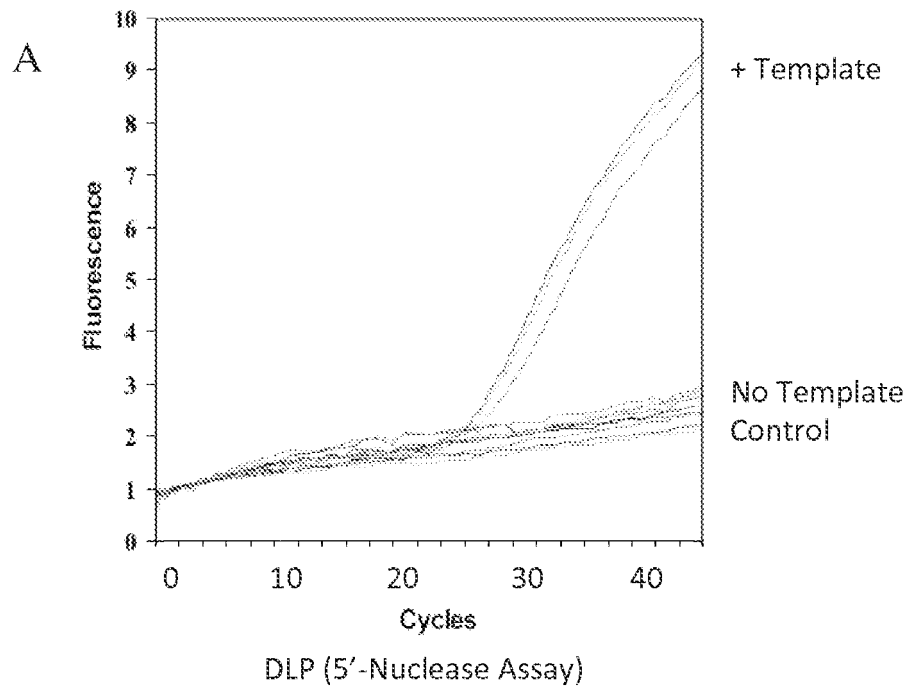


FIG. 32



FIG. 33

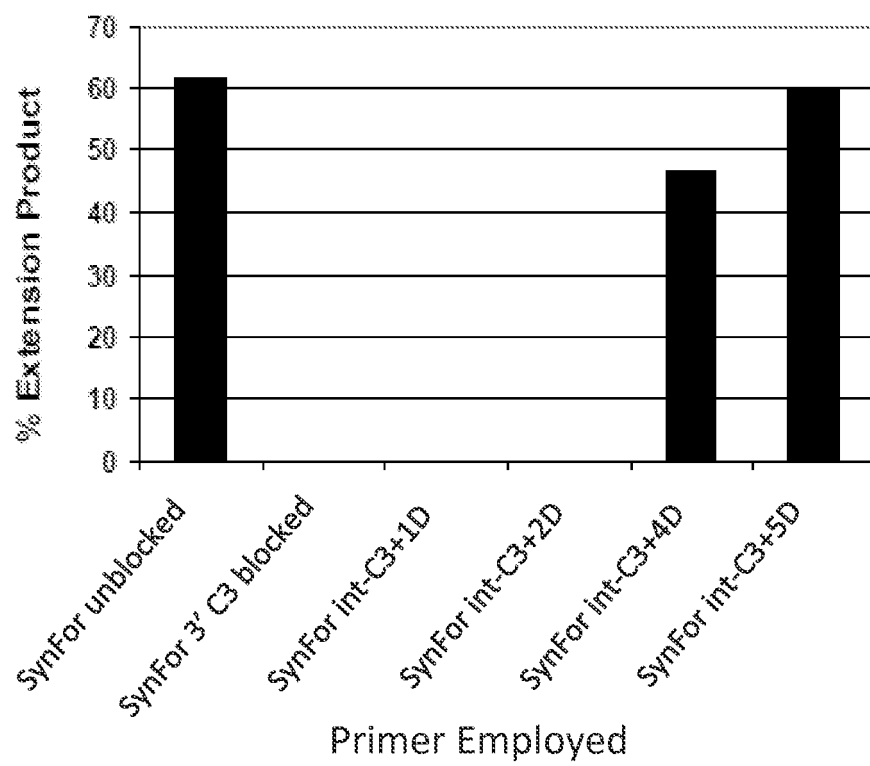


FIG. 34

Sequencing by ligation with cleavable dye-tagged randomer probes

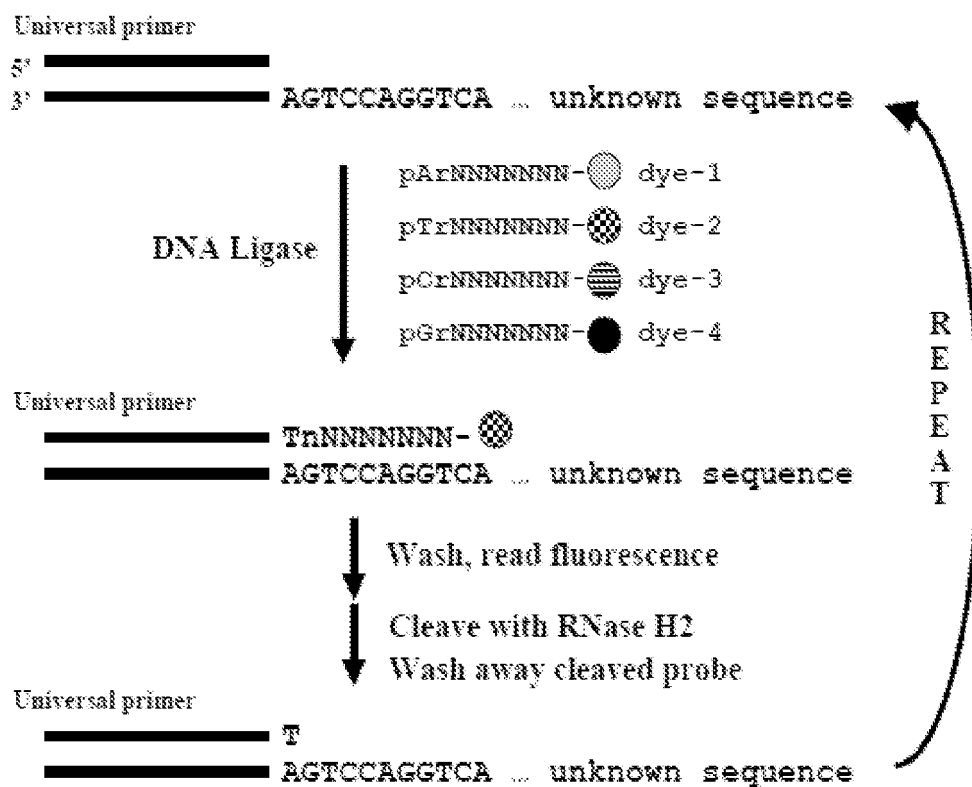


FIG. 35

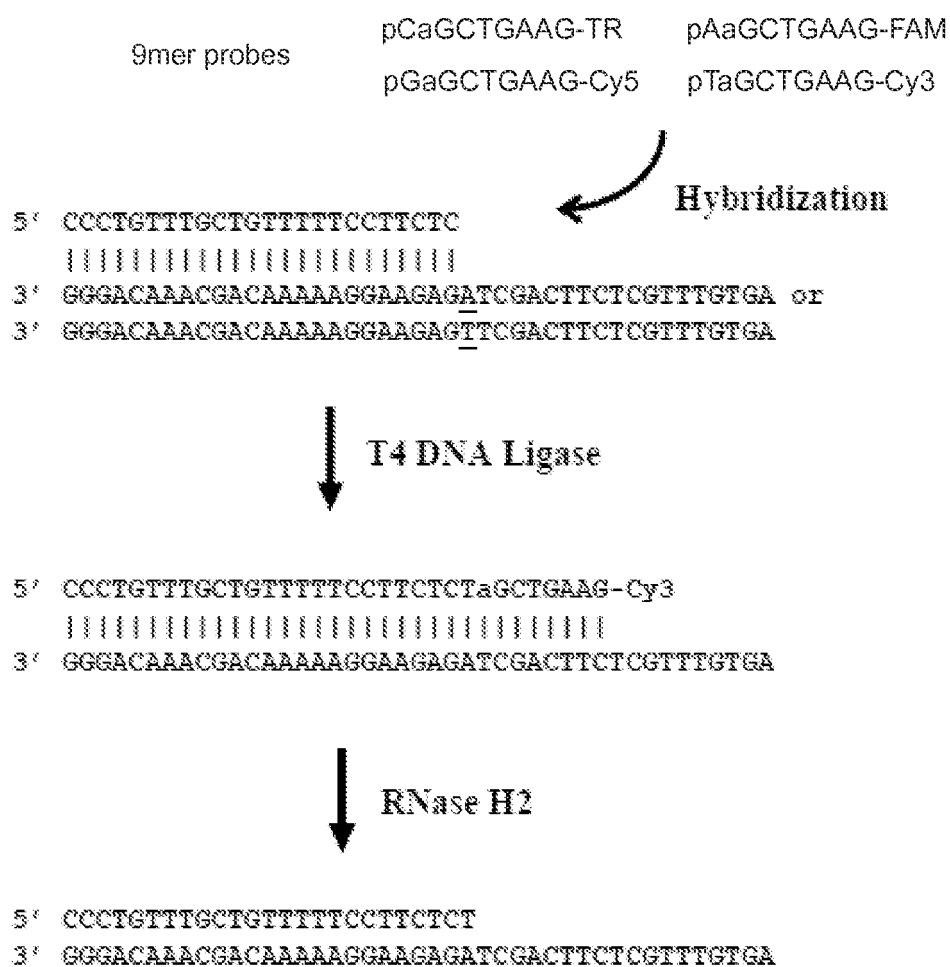


FIG. 36

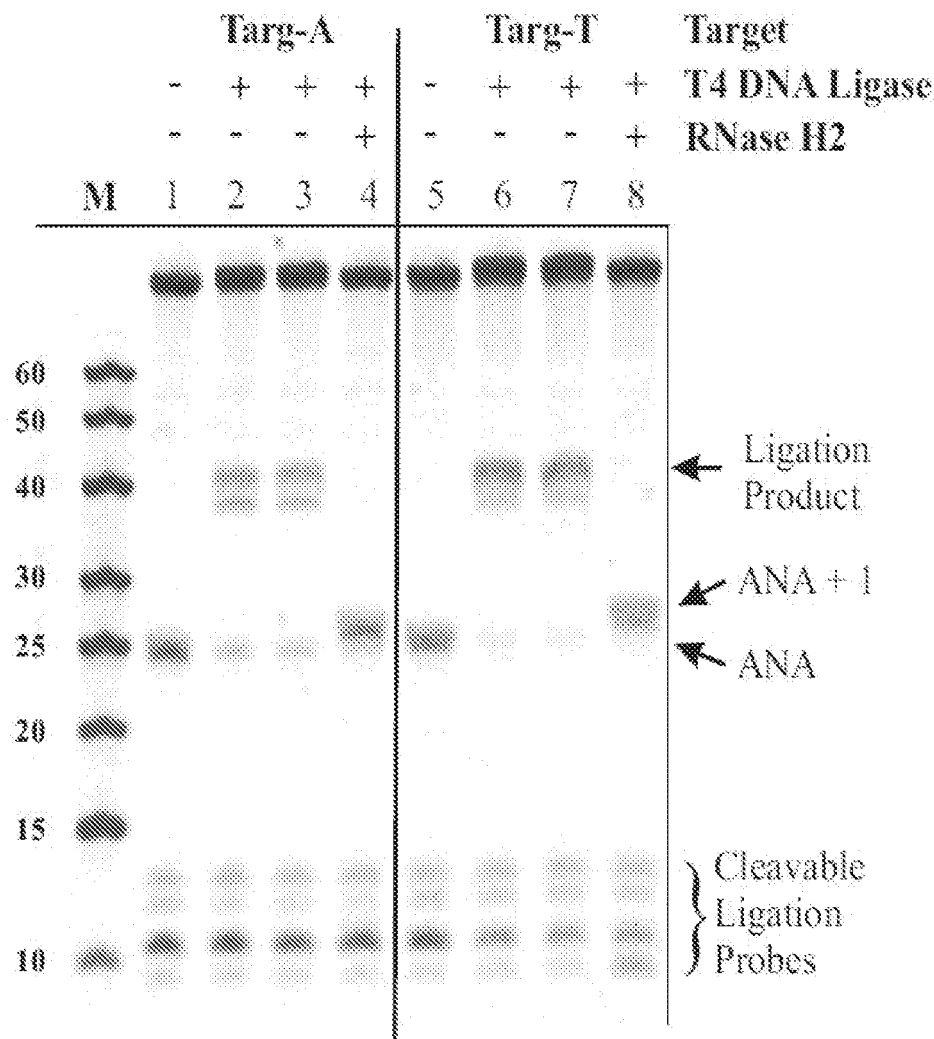


FIG. 37

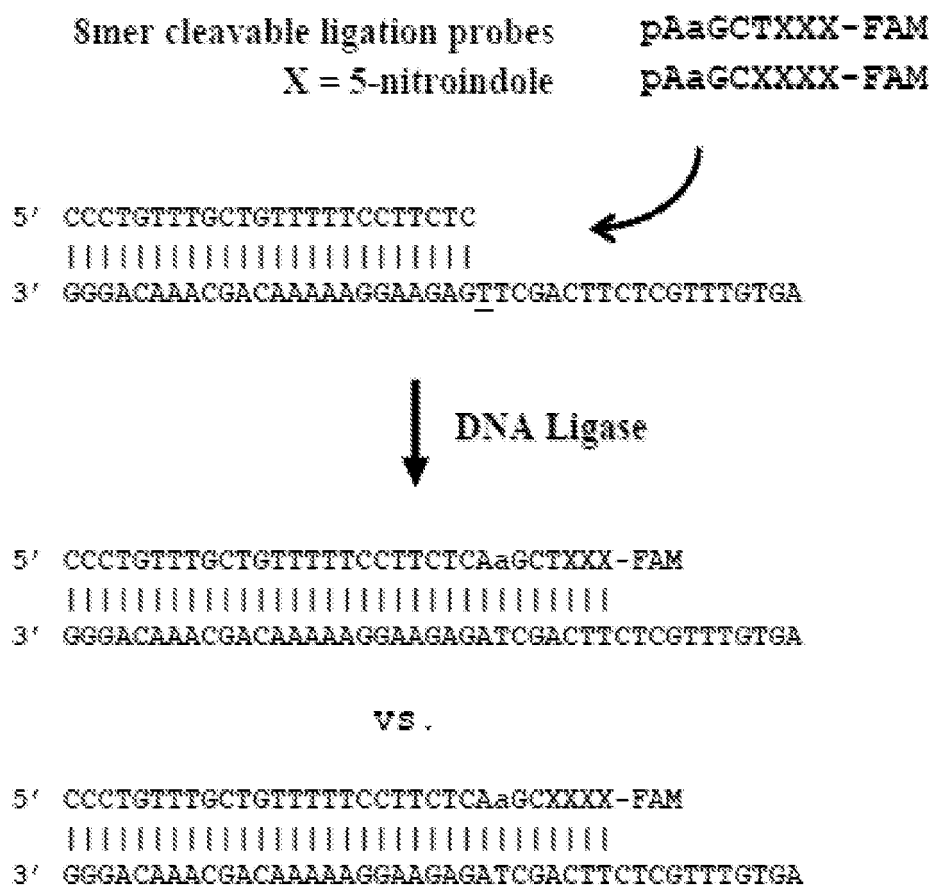


FIG. 38

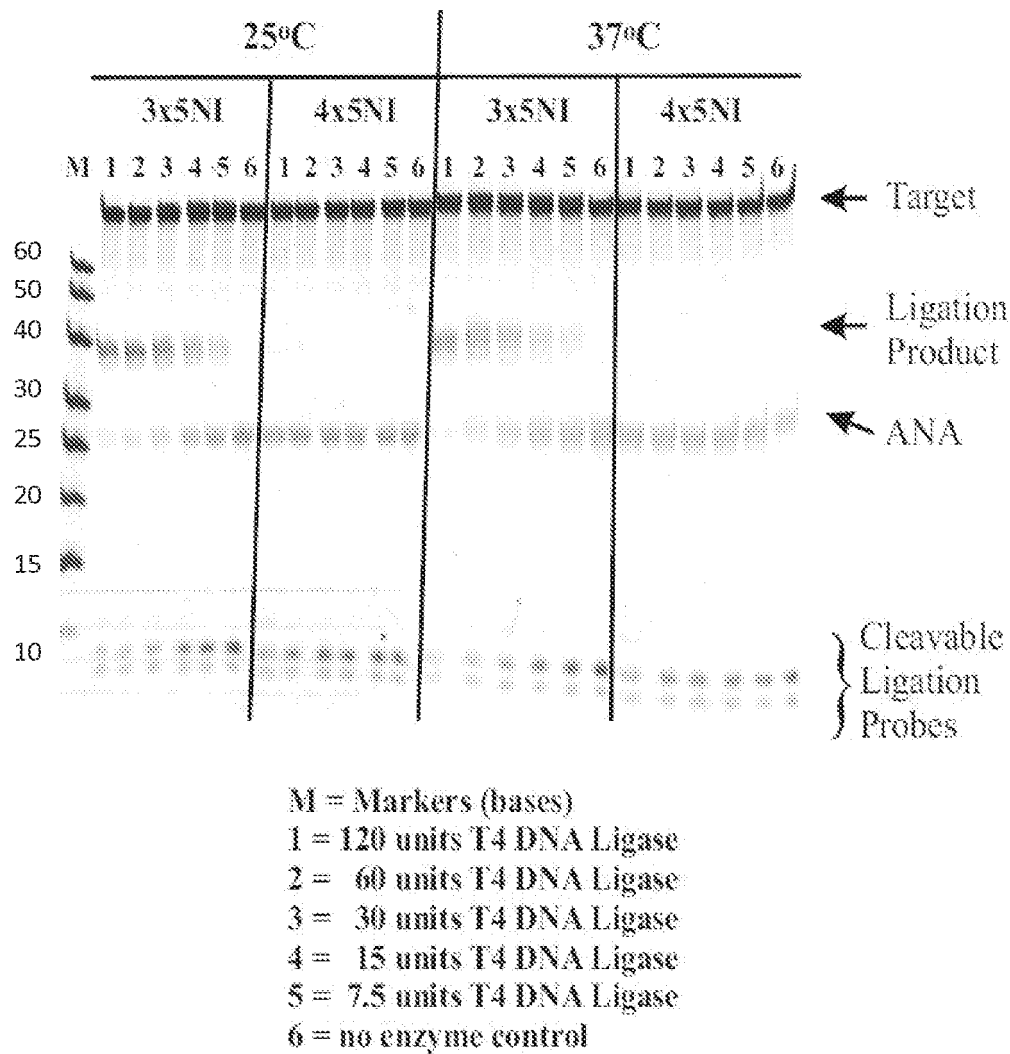


FIG. 39

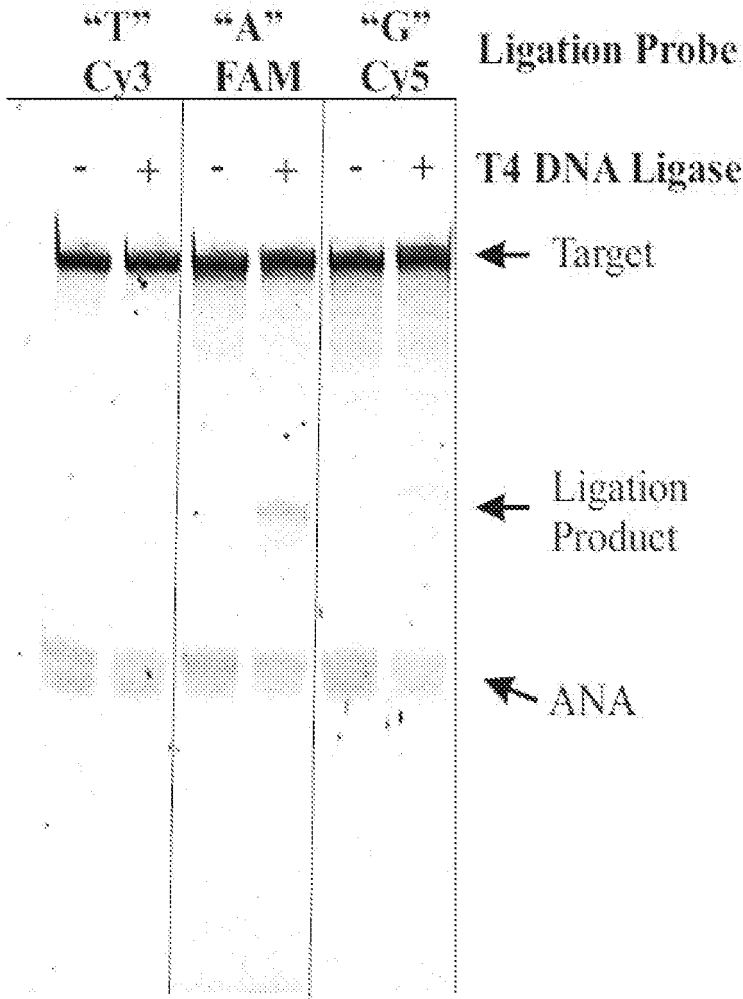
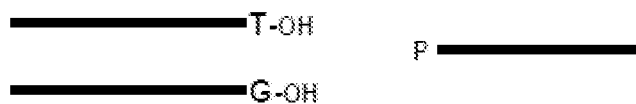


FIG. 40

Traditional OLA Assay: 3 Oligos



2 Alleles (Target nucleic acid)



3 Synthetic Probe Oligos
Similar length / Tm

FIG. 41A

Traditional OLA Assay

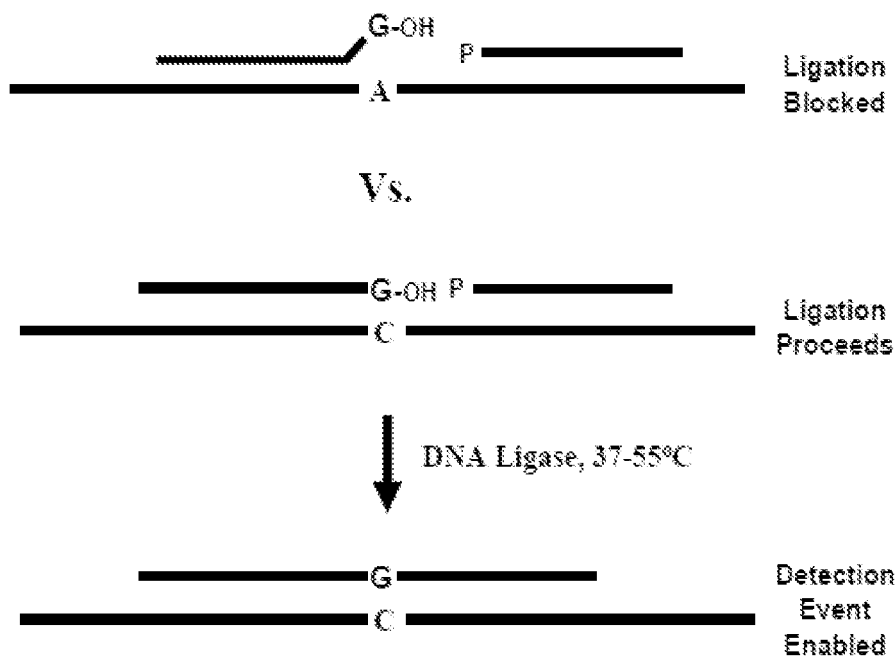
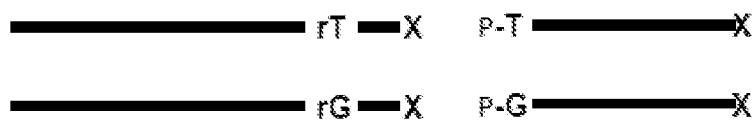


FIG. 41B

New RNase H2 OLA Assay: 4 Oligos



2 Alleles (Target nucleic acids)



4 Synthetic Probe Oligos
Different length / T_m

FIG. 42A

New RNase H2 OLA Assay

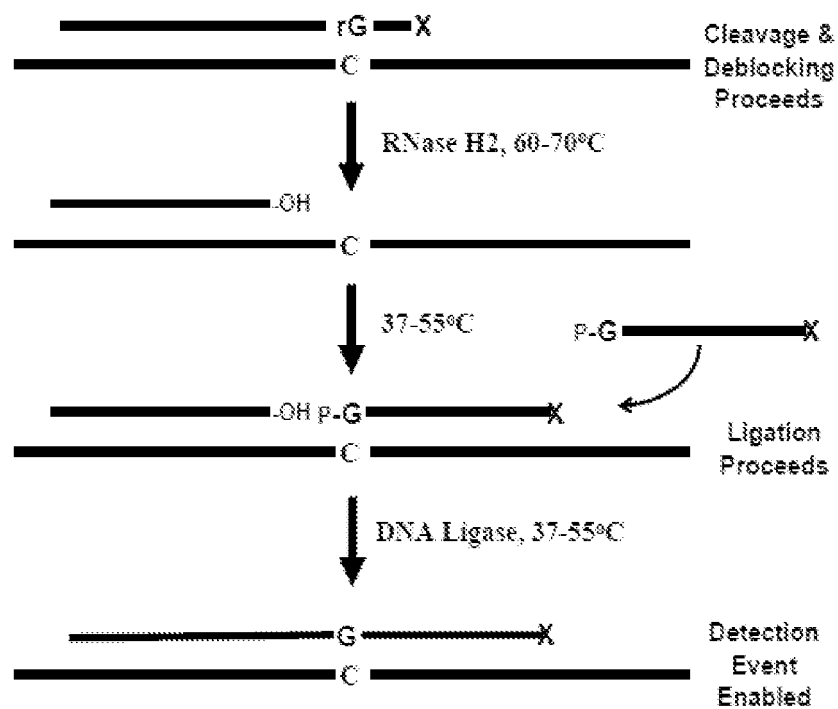


FIG. 42B

New OLA Assay – interrogates the SNP twice

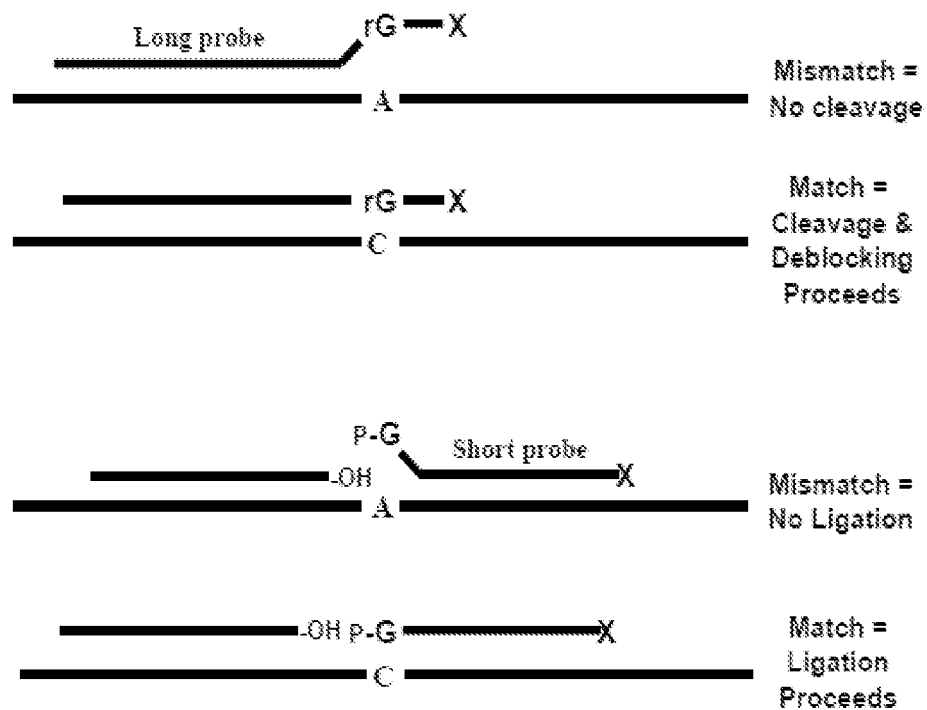
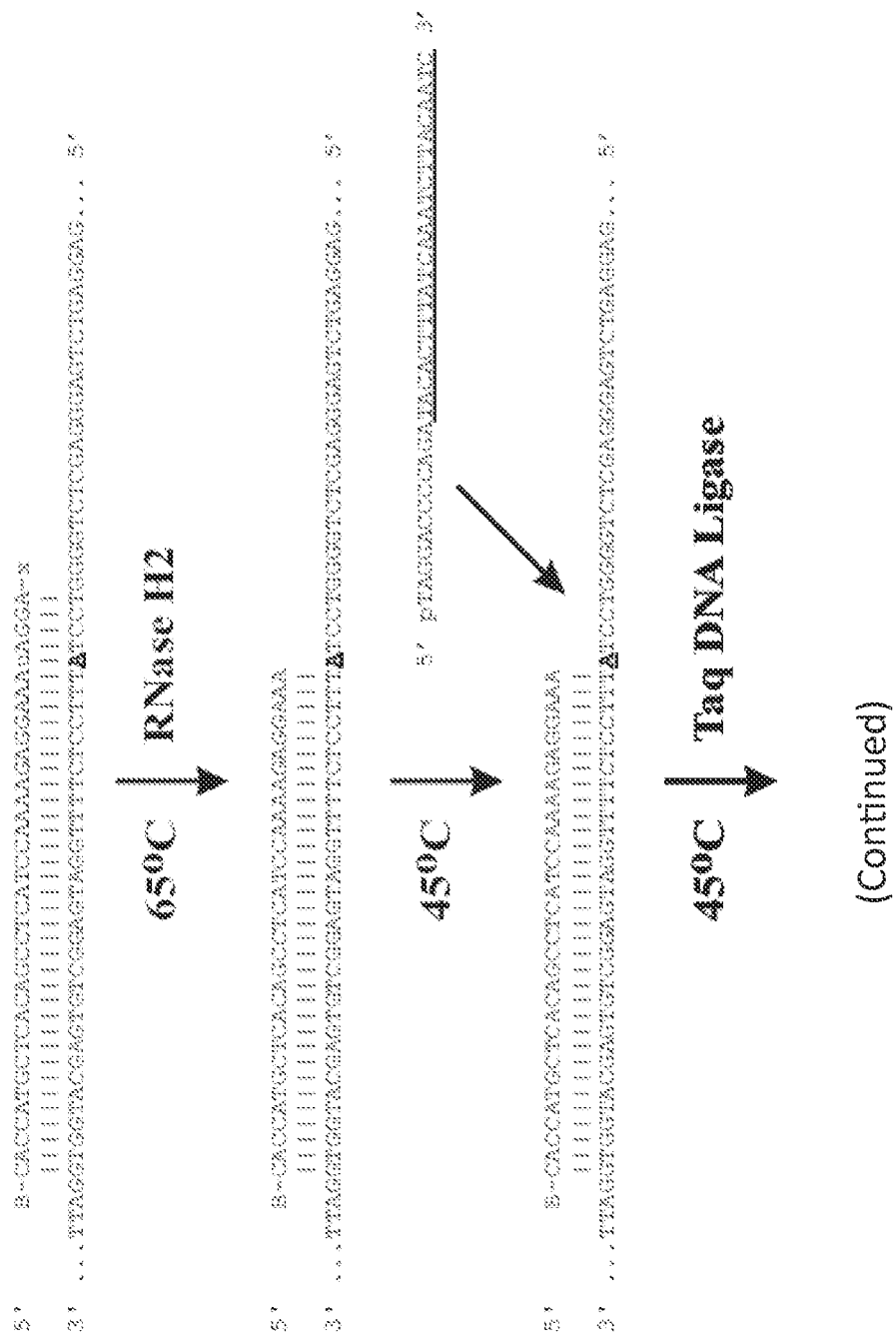


FIG. 42C



3464

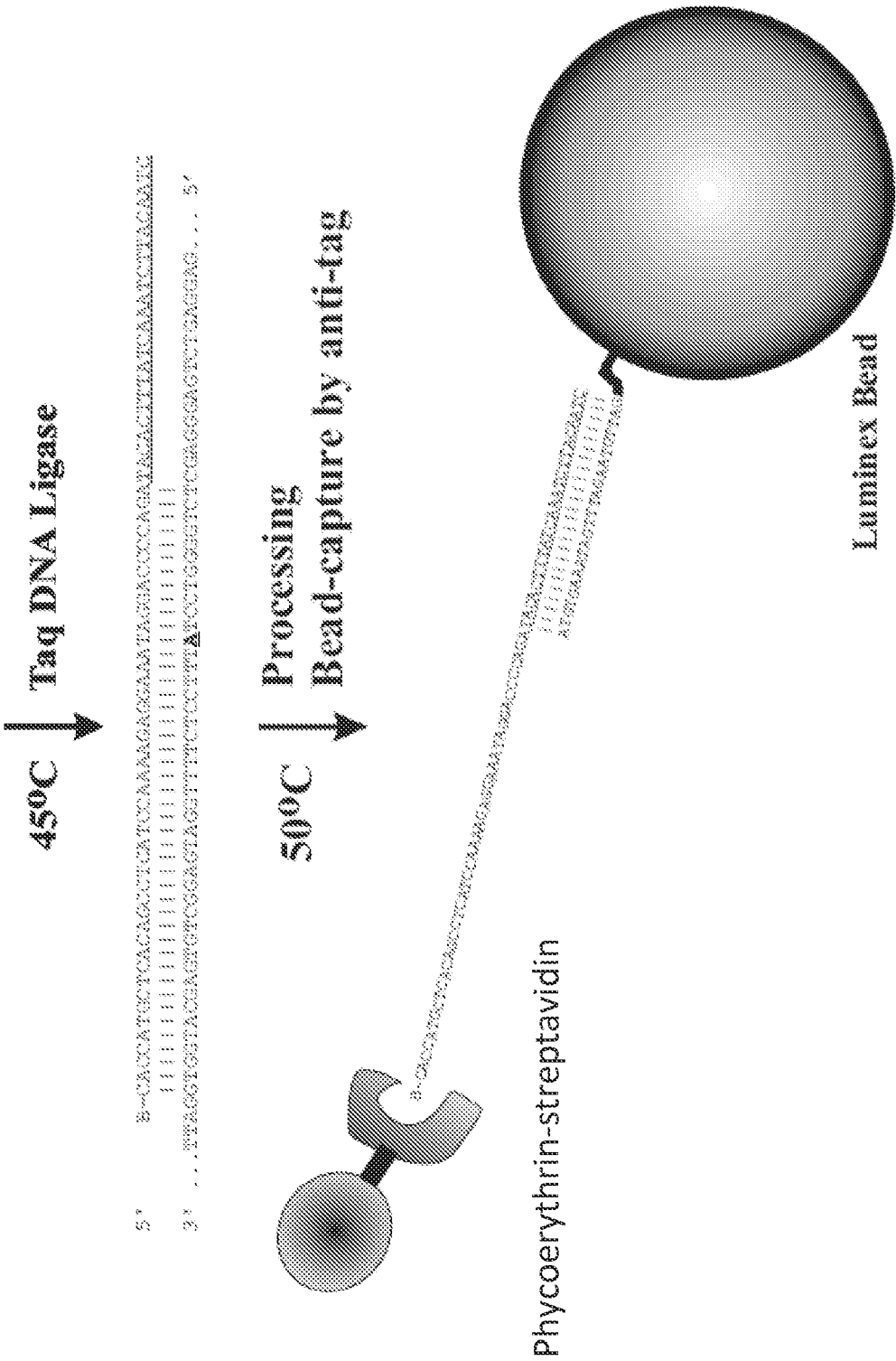


FIG. 43 (con't)

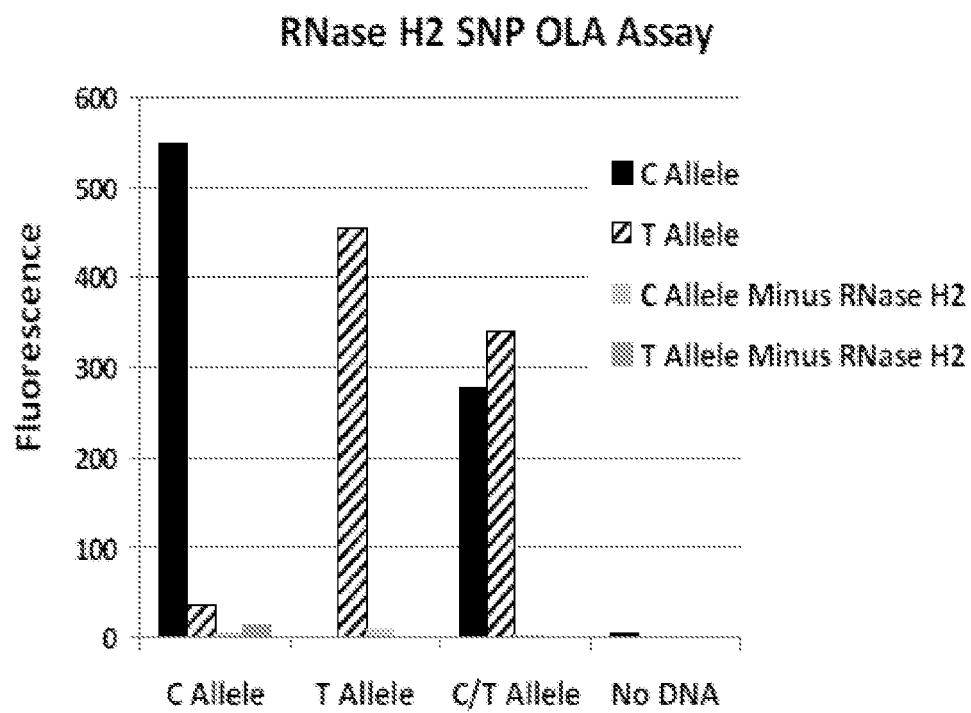
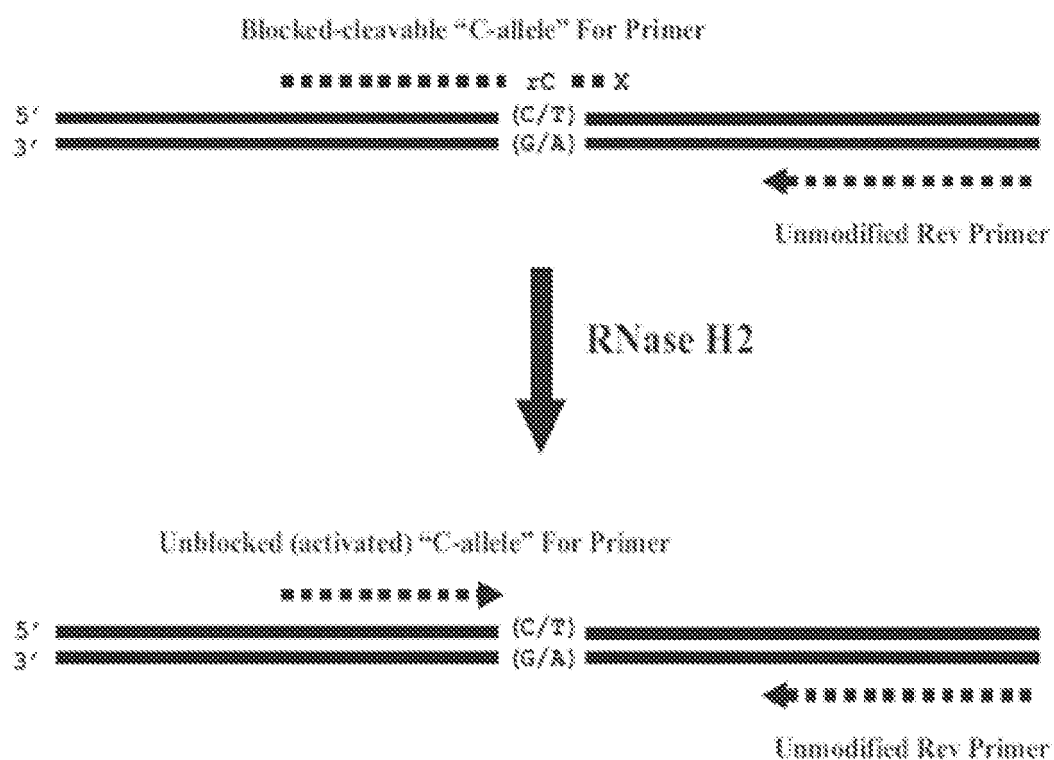


FIG. 44



Single allele-specific blocked-cleavable primer, "For" orientation

FIG. 45A

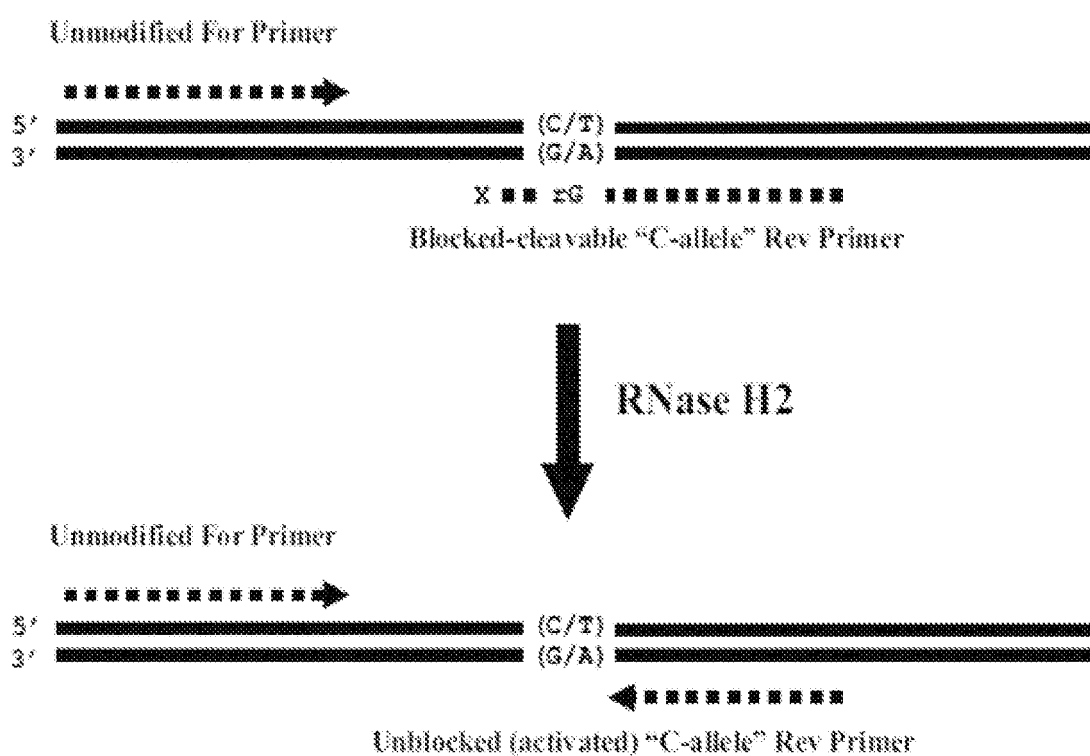
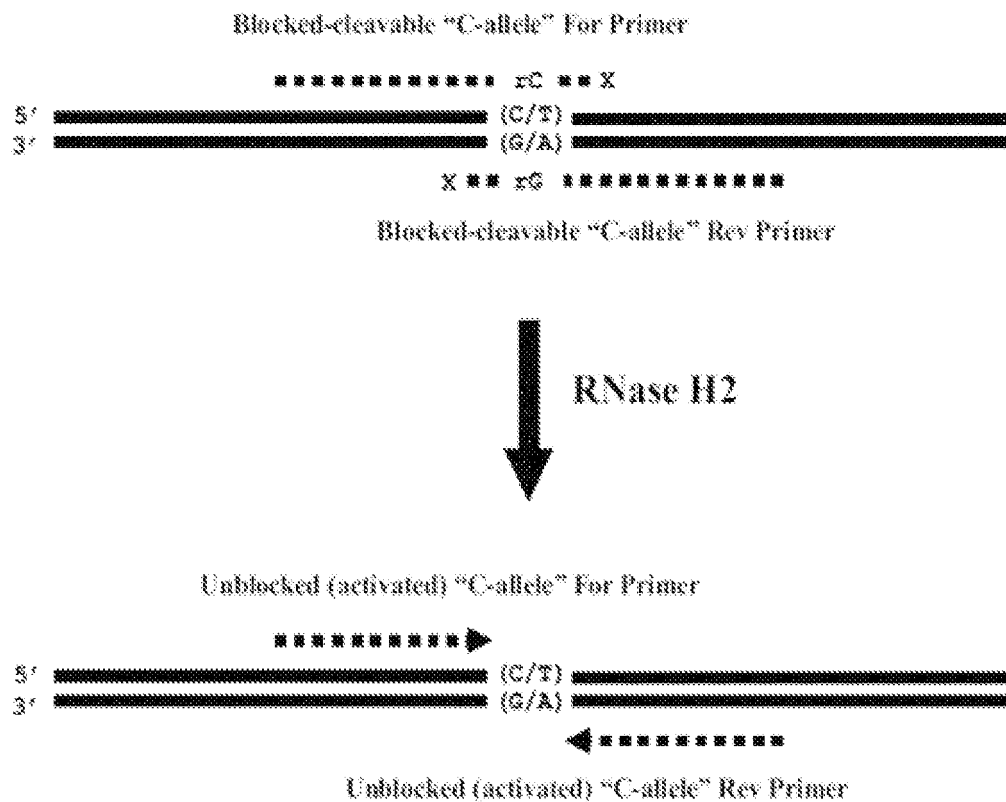


FIG. 45B



Dual allele-specific blocked-cleavable primers, "For + Rev" orientations

FIG. 45C