The TRP1 gene encodes phosphoribosylanthranilate isomerase, an enzyme that catalyzes the third step in tryptophan biosynthesis. Trp1p catalyzes the conversion of N-5'-phosphoribosyl-anthranilate to 1--1-deoxyribulose 5-phosphate. Because trp1 mutants require tryptophan to grow, the TRP1 gene has been used as a convenient marker in strain and plasmid construction. In addition to their tryptophan auxotrophy, trp1 mutants are also cold sensitive. TRP1 has also been frequently utilized in genetic mapping experiments; it is closely linked to the centromere on chromosome IV. Although, the systematic sequence for TRP1/YDR007W originally contained a nonsensemutation at codon 67, it has since been shown that S288C does not contain this mutation in the TRP1 gene. The TRP1 mutation was introduced during the creation of strain AB972. AB972 is an ethidium bromide-induced derivative of the strain X2180-1B-trp1, which was supplied by E. Jones [M.V. Olson]. The lineage of AB972 traces directly to the strain S288C with no intervening outcrosses. The strain AB972 was the origin of the clone used for sequencing this segment of chromosome IV. In order to more accurately present this region of within the S288C reference strain, SGD has sequenced the S288C TRP1 locus and did not find the internal STOP codon. Thus, on Februrary 11, 2004, SGD updated the TRP1 sequence by changing the previously annotated internal STOPto serine.