[rs79348369](https://www.ncbi.nlm.nih.gov/projects/SNP/snp_ref.cgi?rs=79348369)*[Homo sapiens]*

ATGAAAAGTAGCGTCAAAGGAAAAG[G/T]ACTCAAATTCTGTTGCCACCTTTCG

Chromosome:4:184629360

Gene:CASP3

1. Allele specific primer design on wild type nucleotide of CASP3 gene

|  |  |  |
| --- | --- | --- |
|  | Forward Primer | Reverse Primer |
| Sequence | GAAAAGTAGCGTCAAAGGAAAAGG | TTCTTGGCGAAATTCAAAGG |
| Length | 24 bp | 20 bp |
| Start | 531 | 688 |
| Tm | 41.67% | 40.00% |
| GC | 61.68°C | 60.18°C |
| Self-Dimer ( ΔG) | -0.96 kcal/mol | -0.96 kcal/mol |
| Hairpin ( ΔG) | 1.03 kcal/mol | - 0.77 kcal/mol |
| Cross Dimer (ΔG) | -40.00kcal/mole | |
| Product size | 158 bp | |

2. Allele specific primer design on mutant nucleotide of CASP3 gene

|  |  |  |
| --- | --- | --- |
|  | Forward Primer | Reverse Primer |
| Sequence | TCATTTGGGAGATGGCTCGT | CATGGCATGCCTGTATCAAA |
| Length | 20 bp | 20 bp |
| Start | 497 | 687 |
| GC | 52.88% | 45.00 % |
| Tm | 61.76 °C | 60.49°C |
| Self-Dimer ( ΔG) | -1.47 kcal/mol | -0.96 kcal/mol |
| Hairpin ( ΔG) | -0.5 kcal/mol | - 0.77 kcal/mol |
| Cross Dimer (ΔG) | -39.05 kcal/mol | |
| Product size | 190 bp | |