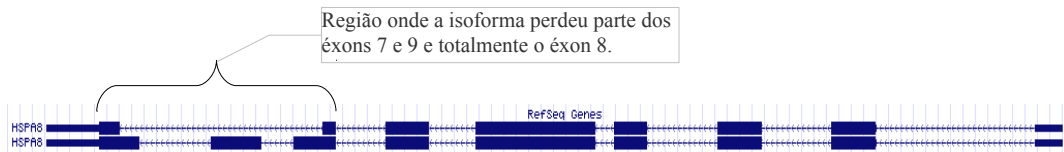


Questão 05) Para o desenho do primer, use qualquer programa ou faça manualmente. Desenhe os primers nos éxons flanqueando o éxon excluído. Faça uma descrição sucinta indicando os tamanhos dos produtos de PCR esperado para cada isoforma.

O gene HSPA8 possui 2 isoformas, abaixo podemos ver a diferença entre as duas:



	ISOFORMA 01	ISOFORMA 02
Éxon 07	GTTTATGAAGGCGAGCGTGCCATGACAAAGGATAACAACCTGCTTGGCAA GTTTGAACCTCACAG	GTTTATGAAGGCGAGCGTGCCATGACAAAGGATAACAACCTGCTTGGCAA GTTTGAACCTCACAGGCATACCTCCTGCACCCCGAGGTGTTCTCAGATTG AAGTCACTTTTGACATTGATGCCAATGGTATACTCAATGTCTCTGCTGTG GACAAGAGTACGGGAAAAGAGAAACAAGATTACTATCACTAATGACAAGG
Éxon 08		GCCGTTTGAGCAAGGAAGACATTGAACGTATGGTCCAGGAAGCTGAGAAG TACAAAGCTGAAGATGAGAAGCAGAGGGACAAGGTGTATCCAAGAATTC ACTTGAGTCCATATGCCTTCAACATGAAAGCAACTGTTGAAGATGAGAAAC TTCAAGGCAAGATTAACGATGAGGACAAACAGAAGATTCTGGACAAGTGT AATGAAATTATCAACTGGCTTGATAAGAATCAG
Éxon 09	GCATGCCAG GAGGAATGCCTGGGGGATTTCTGGTGGTGGAGCTCCTCCCTCTGGTGGT GCTTCCTCAGGGCCCACCATTGAAGAGGTTGATTAAGCCAACCAAGTGTA GATGTAGCATTGTTCCACACATTTAAACATTTGAAGGACCTAAATTTCGT AGCAAATTCGTGGCAGTTTTAAAAAGTTAAGCTGCTATAGTAAGTTACT GGGCATTCTCAATACTTGAATATGGAACATATGCACAGGGGAAGGAAATA ACATTGCACTTTATAAACACTGTATTGTAAGTGGAATGCAATGTCTTA AATAAACTATTTAAATTTGGCACCATA	ACTGCTGAGAAGGAAGAATTTGAACATCAACAGAAAGAGCTGGAGAAAGT TTGCAACCCCATCATCACCAGCTGTAACAGAGTGCAGGAGGCATGGCAG GAGGAATGCCTGGGGGATTTCTGGTGGTGGAGCTCCTCCCTCTGGTGGT GCTTCCTCAGGGCCCACCATTGAAGAGGTTGATTAAGCCAACCAAGTGTA GATGTAGCATTGTTCCACACATTTAAACATTTGAAGGACCTAAATTTCGT AGCAAATTCGTGGCAGTTTTAAAAAGTTAAGCTGCTATAGTAAGTTACT GGGCATTCTCAATACTTGAATATGGAACATATGCACAGGGGAAGGAAATA ACATTGCACTTTATAAACACTGTATTGTAAGTGGAATGCAATGTCTTA AATAAACTATTTAAATTTGGCACCATA

Obs: destacado em amarelo estão os locais dos primers.

Para desenhar os primers usei a ferramenta [Prime-Blast](#) do NCBI. Os primers ficaram assim:

Forward primer: CCTGCACCCCGAGGTGTTCC tm: 59,34
Reverse primer: GGCATGCCTCCTGCACTCTGG tm: 59,78

Tamanho esperado: 458pb