

1 DUSP4

Homo sapiens dual specificity phosphatase 4 (DUSP4), transcript variant 2 protein encoded by this gene is a member of the dual specificity protein phosphatase subfamily. These phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine/threonine and phosphotyrosine residues. They negatively regulate members of the mitogen-activated protein (MAP) kinase superfamily (MAPK/ERK, SAPK/JNK, p38), which are associated with cellular proliferation and differentiation. Different members of the family of dual specificity phosphatases show distinct substrate specificities for various MAP kinases, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. This gene product inactivates ERK1, ERK2 and JNK, is expressed in a variety of tissues, and is localized in the nucleus. Two alternatively spliced transcript variants, encoding distinct isoforms, have been observed for this gene. In addition, multiple polyadenylation sites have been reported.

This gene shows a minor expression in HG19, which is upregulated during marburg infection and highly, up to 5 fold, upregulated in the ebola infected samples. On the other hand, the homolog sequence in the RAE transcripts assembly shows a high expression level, which goes slightly down for RAE MOCK and Ebola after 7h. It increases for marburg and after 23h a 2 fold upregulation could be observed.

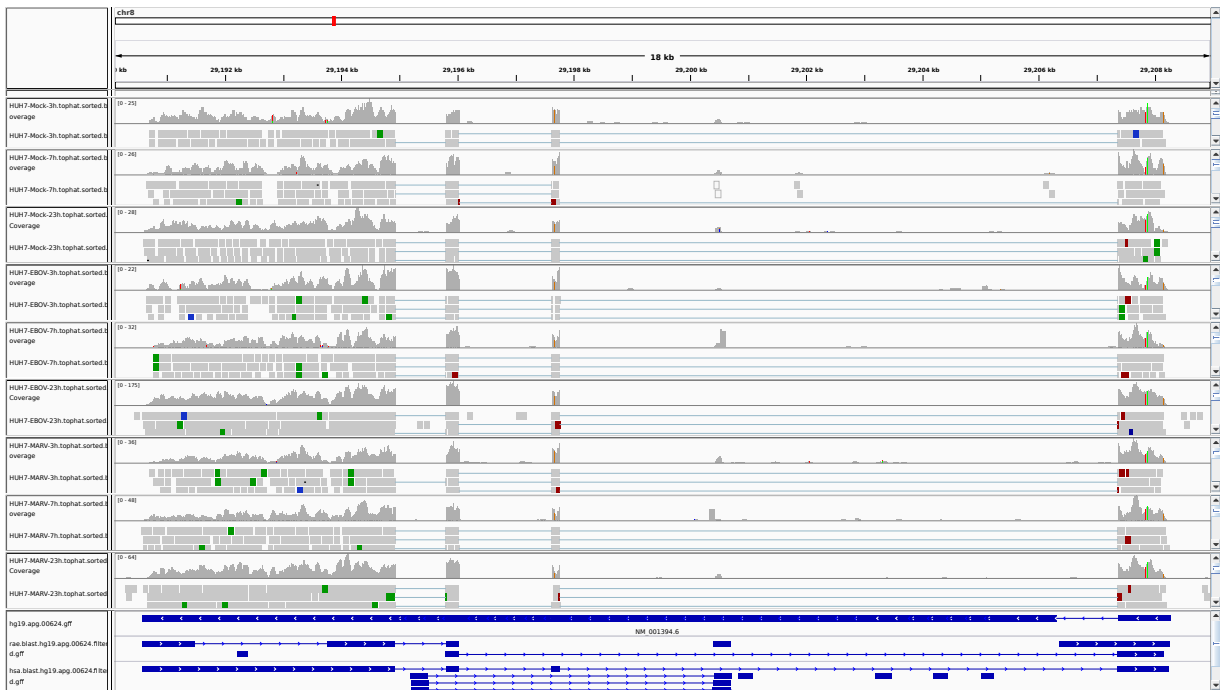


Figure 1: IGV Genome Browser screenshot of gene DUSP4.

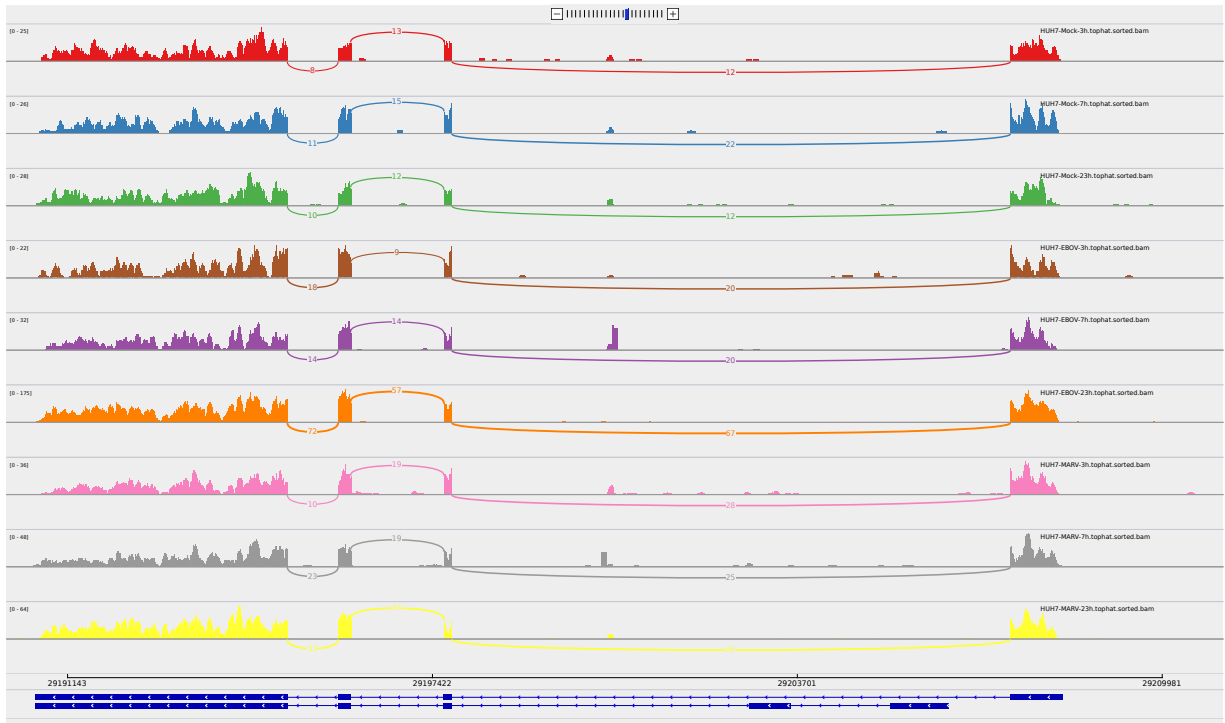


Figure 2: Sashimi plot of gene DUSP4.

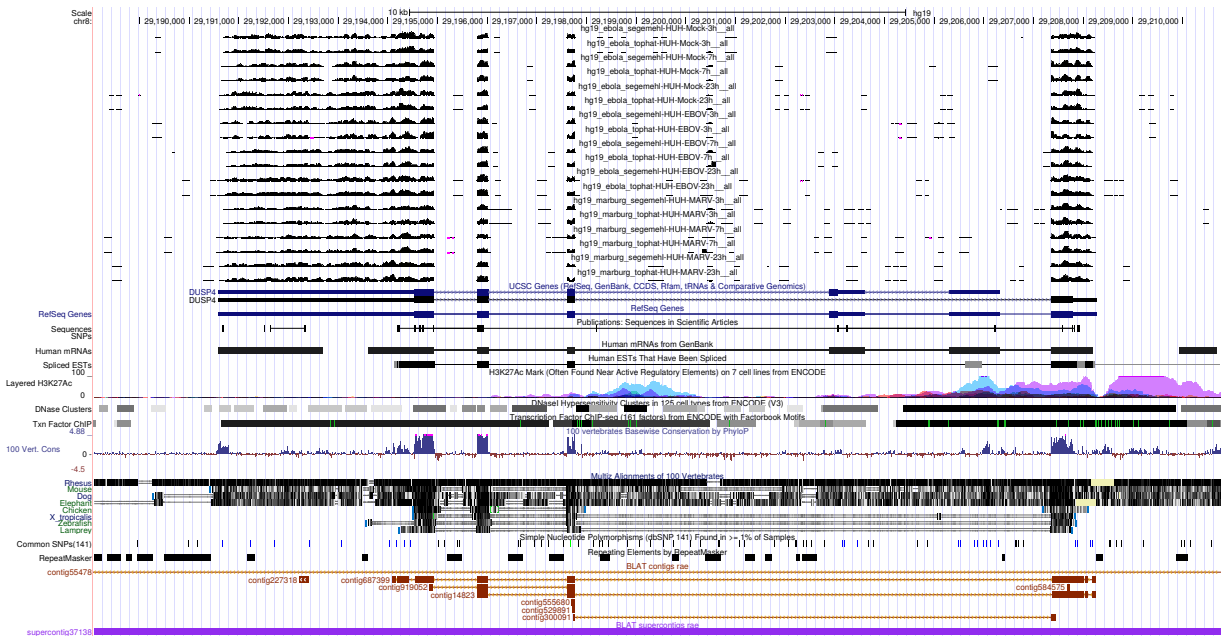


Figure 3: UCSC Genome Browser screenshot of gene DUSP4.