

1 YBX1

Mediates pre-mRNA alternative splicing regulation. Binds to splice sites in pre-mRNA and regulates splice site selection. Binds and stabilizes cytoplasmic mRNA. Contributes to the regulation of translation by modulating the interaction between the mRNA and eukaryotic initiation factors (By similarity). Regulates the transcription of numerous genes. Its transcriptional activity on the multidrug resistance gene MDR1 is enhanced in presence of the APEX1 acetylated form at 'Lys-6' and 'Lys-7'. Binds to promoters that contain a Y-box (5'-CTGATTGGCCAA-3'), such as MDR1 and HLA class II genes. Promotes separation of DNA strands that contain mismatches or are modified by cisplatin. Has endonucleolytic activity and can introduce nicks or breaks into double-stranded DNA (in vitro). May play a role in DNA repair. Component of the CRD-mediated complex that promotes MYC mRNA stability. Binds preferentially to the 5'-[CU]CUGCG-3' motif in vitro. YBX1 is very high expressed in all samples. In Hu7 expression decreases 23 hours after infection with Marburg virus. In contrast, the expression increases 7 and 23 hours after infection with Marburg virus in bat. Alternative splicing is promoted 23 hours after Ebola infection in Hu7 and not observed in this magnitude for all other Hu7 samples.



Figure 1: IGV Genome Browser screenshot of gene YBX1.

Figure 2: Sashimi plot of gene YBX1.

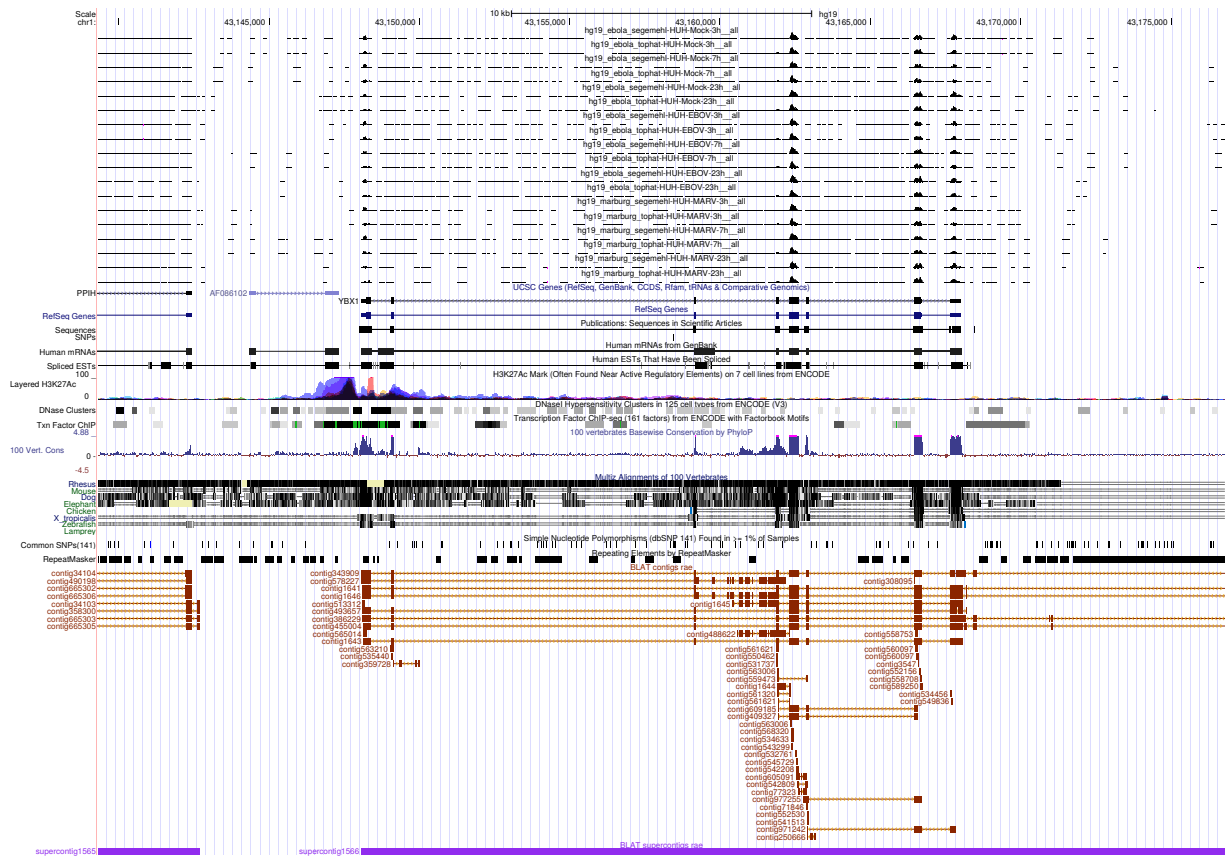


Figure 3: UCSC Genome Browser screenshot of gene YBX1.