1 ATF2

Homo sapiens activating transcription factor 2 (ATF2), transcript variant 7, non-coding RNA gene encodes a transcription factor that is a member of the leucine zipper family of DNA binding proteins. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. It forms a homodimer or a heterodimer with c-Jun and stimulates CRE-dependent transcription. This protein is also a histone acetyltransferase (HAT) that specifically acetylates histones H2B and H4 in vitro; thus it may represent a class of sequence-specific factors that activate transcription by direct effects on chromatin components. The encoded protein may also be involved in cell's DNA damage response independent of its role in transcriptional regulation. Several alternatively spliced transcript variants have been found for this gene.

The expression pattern are very diverse. For HG19 Mock nothing changes, whereas during ebola infection the expression is up- and durng marburg downregulated. In RAE MOCK the transcripts decrease, similar to ebola infected RAE samples. In contrast the marburg infected cells schow an upregulation and afterwards 2 fold downregulation after 7h.

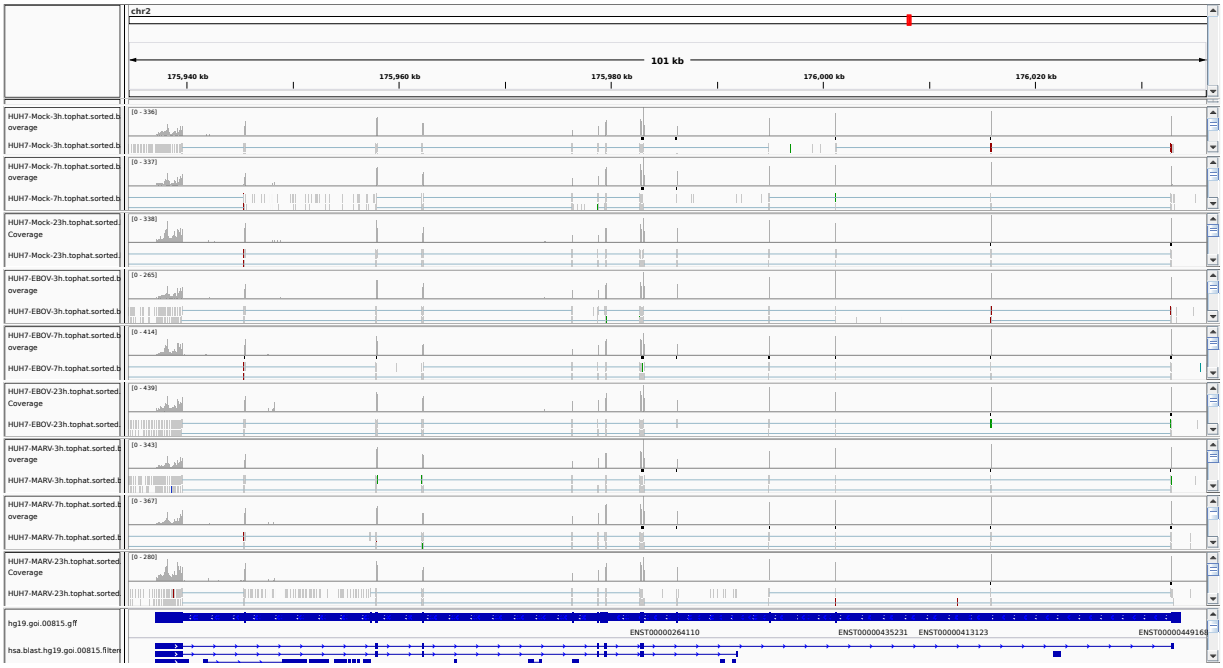

Figure 1: IGV Genome Browser screenshot of gene ATF2.

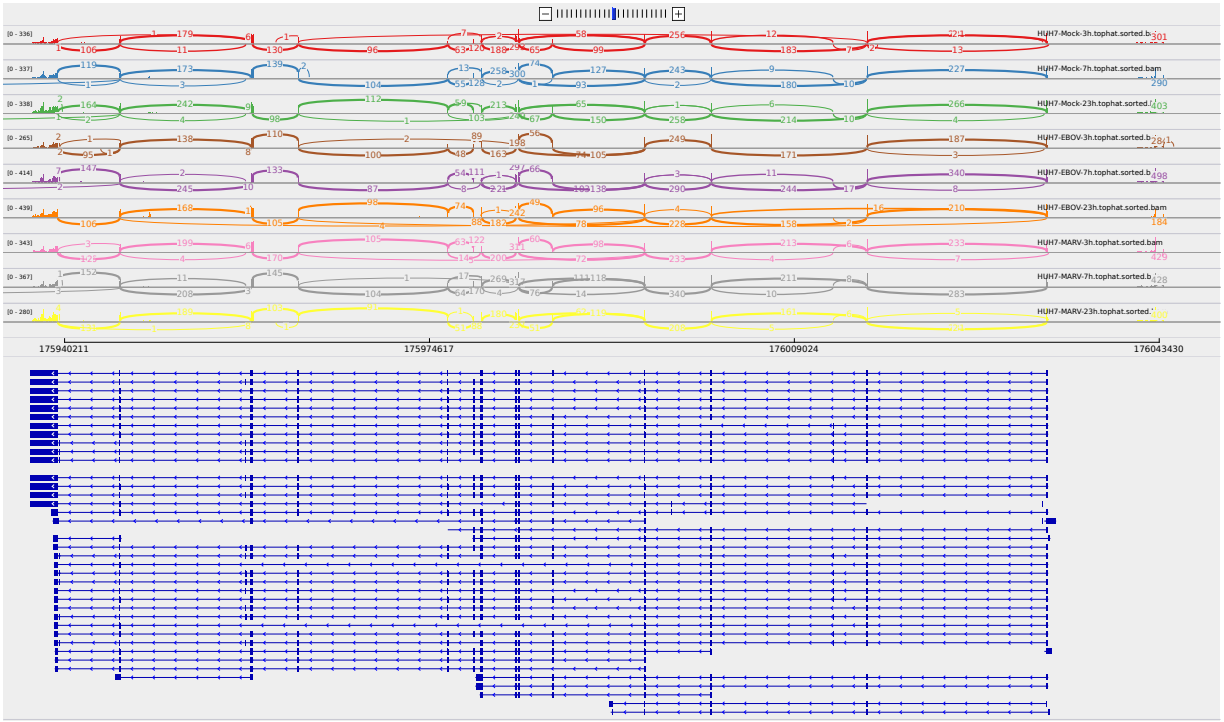

Figure 2: Sashimi plot of gene ATF2.

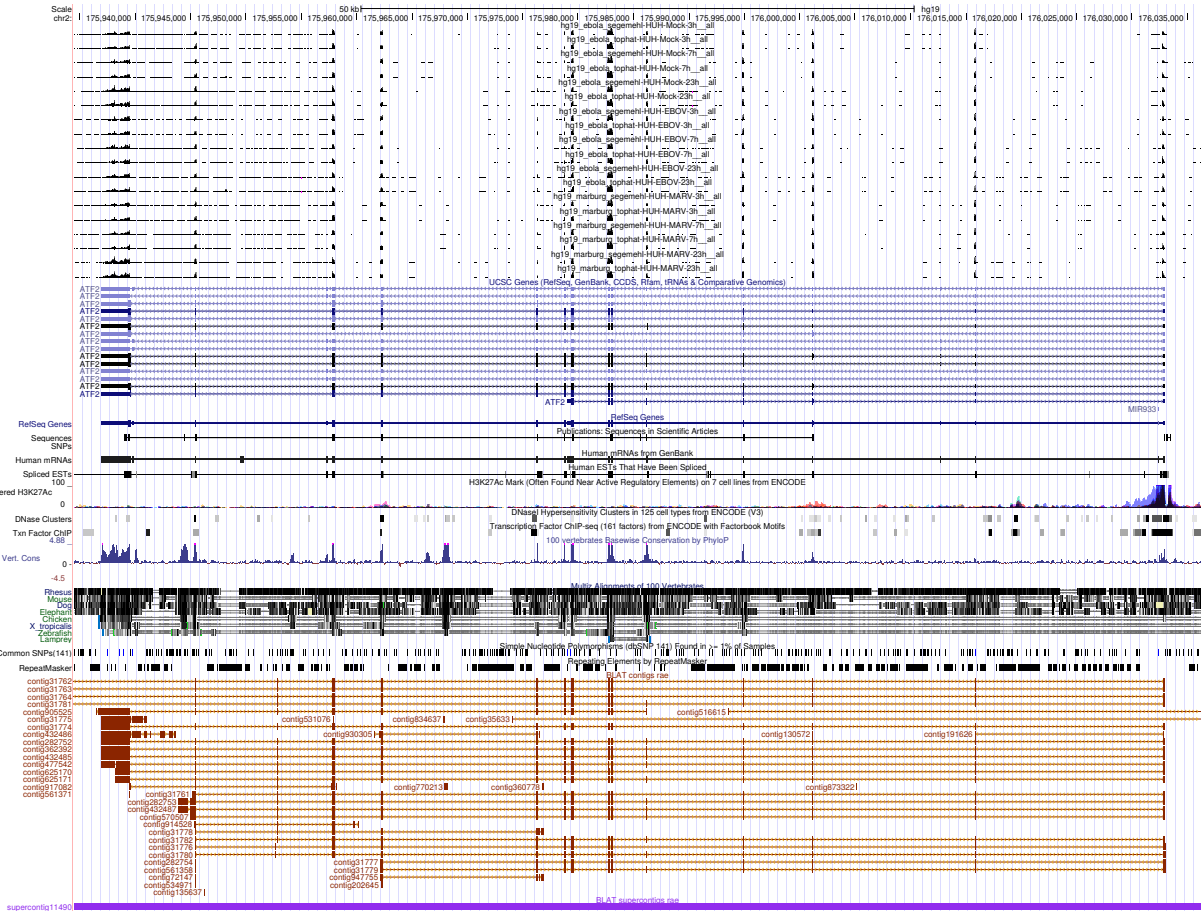

Figure 3: UCSC Genome Browser screenshot of gene ATF2.