

1 SMAD1

Homo sapiens SMAD family member 1 (SMAD1), transcript variant 1 protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *C. elegans* gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed.

In contrast to RAE, the human samples show a minor expression with nearly equal mapping results. The covered antisense located BC069804 and BC042377 cDNA clones show no expression pattern. In RAE the wildtype expression decreases, while the ebola and marburg infected bat tissues shows an (ebola: slight 3-7h down- and then) upregulation of this gene homolog.

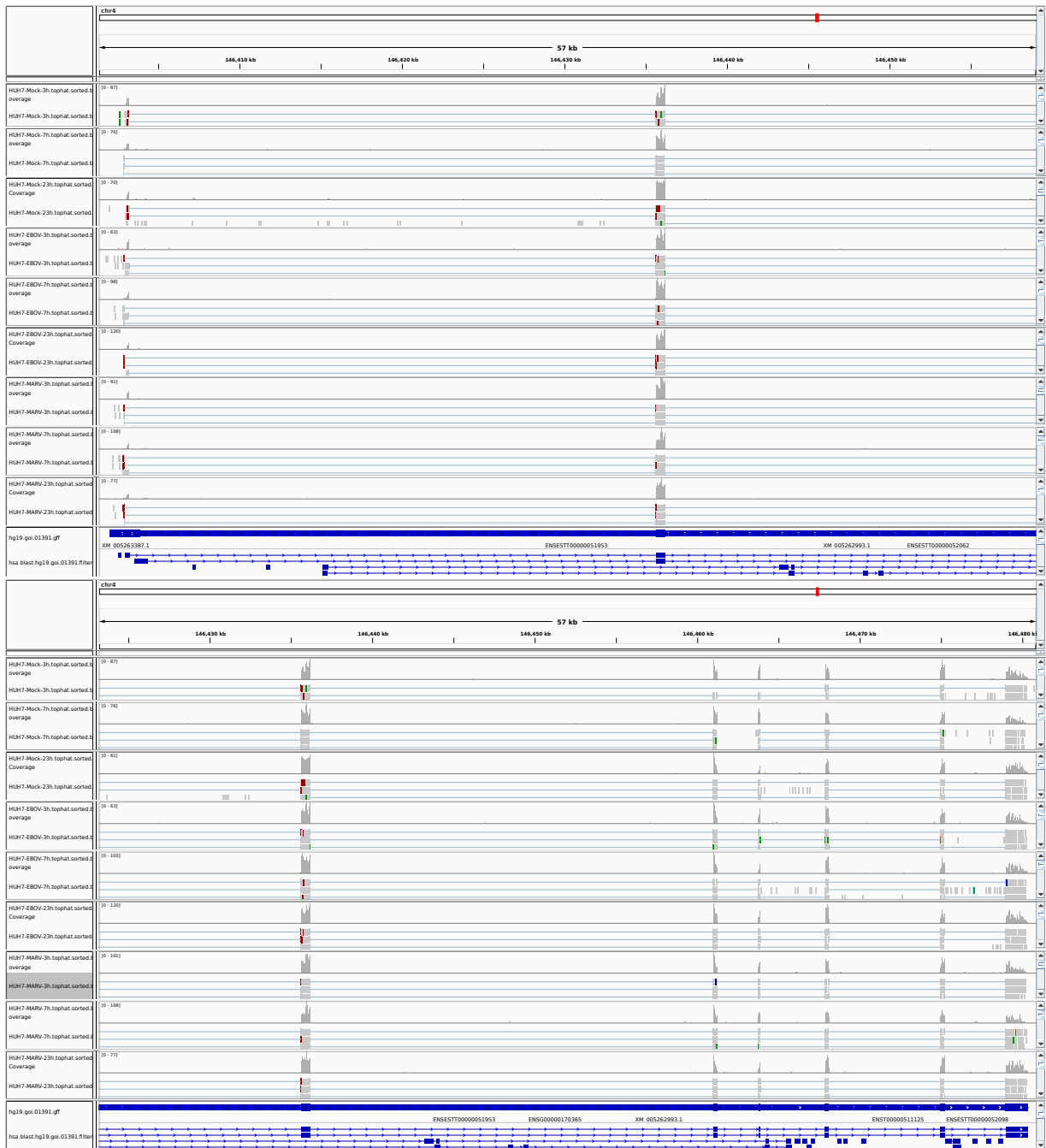


Figure 1: IGV Genome Browser screenshot of gene SMAD1.

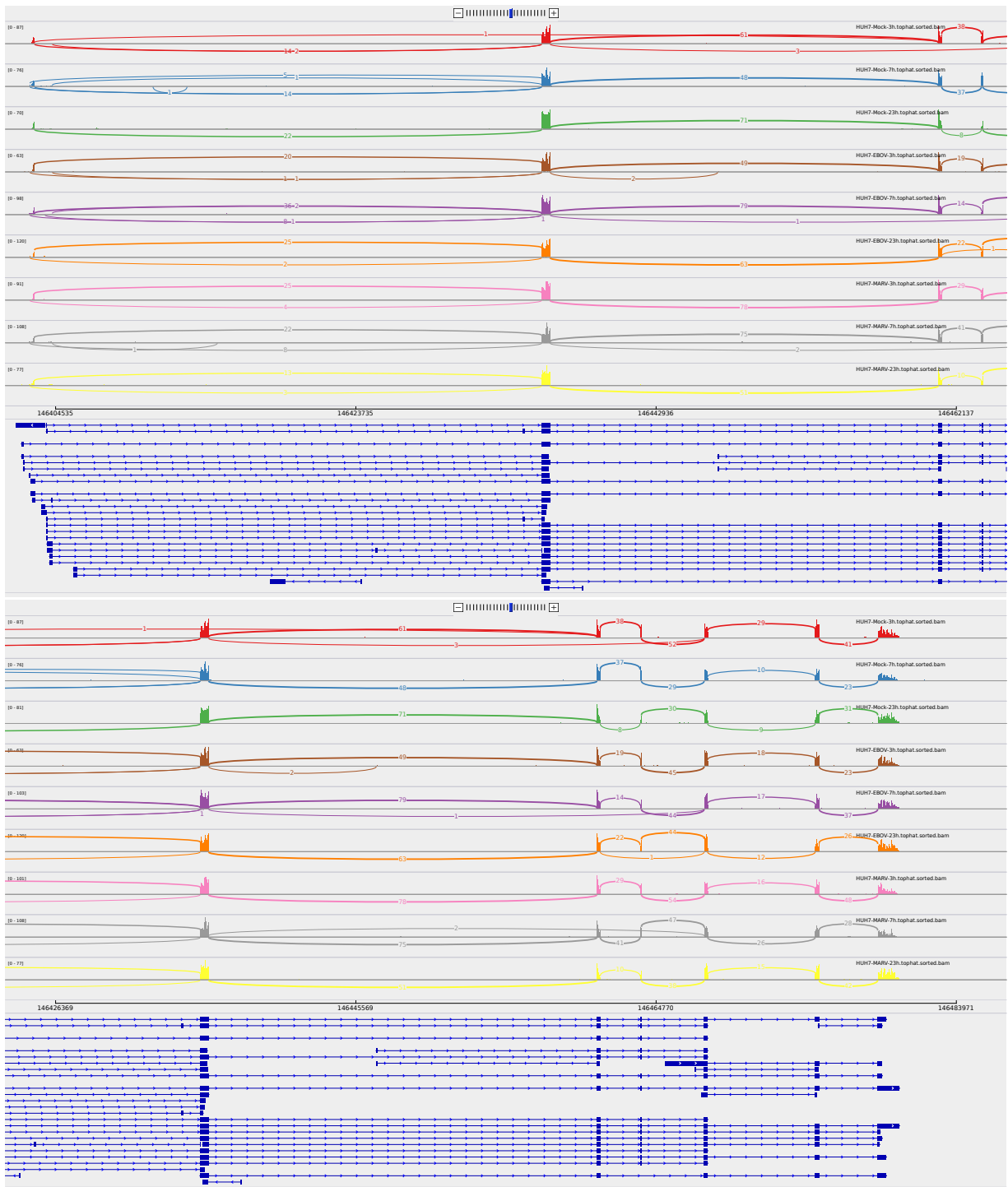


Figure 2: Sashimi plot of gene SMAD1.

