1 IPO5

Nucleocytoplasmic transport, a signal- and energy-dependent process, takes place through nuclear pore complexes embedded in the nuclear envelope. The import of proteins containing a nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits also known as karyopherins. Importin alpha binds the NLS-containing cargo in the cytoplasm and importin beta docks the complex at the cytoplasmic side of the nuclear pore complex. In the presence of nucleoside triphosphates and the small GTP binding protein Ran, the complex moves into the nuclear pore complex and the importin subunits dissociate. Importin alpha enters the nucleoplasm with its passenger protein and importin beta remains at the pore. Interactions between importin beta and the FG repeats of nucleoporins are essential in translocation through the pore complex. The protein encoded by this gene is a member of the importin beta family.

This gene is highly expressed in human and bat. In human all sample genes are upregulated until 7 h. After 23 h the expression is downregulated, most of all during Marburg infection (2 fold decrease). In bat the expression level is 2 fold downregulated, except for Marburg samples, which are first upregulated.

Figure 1: IGV Genome Browser screenshot of gene IPO5.

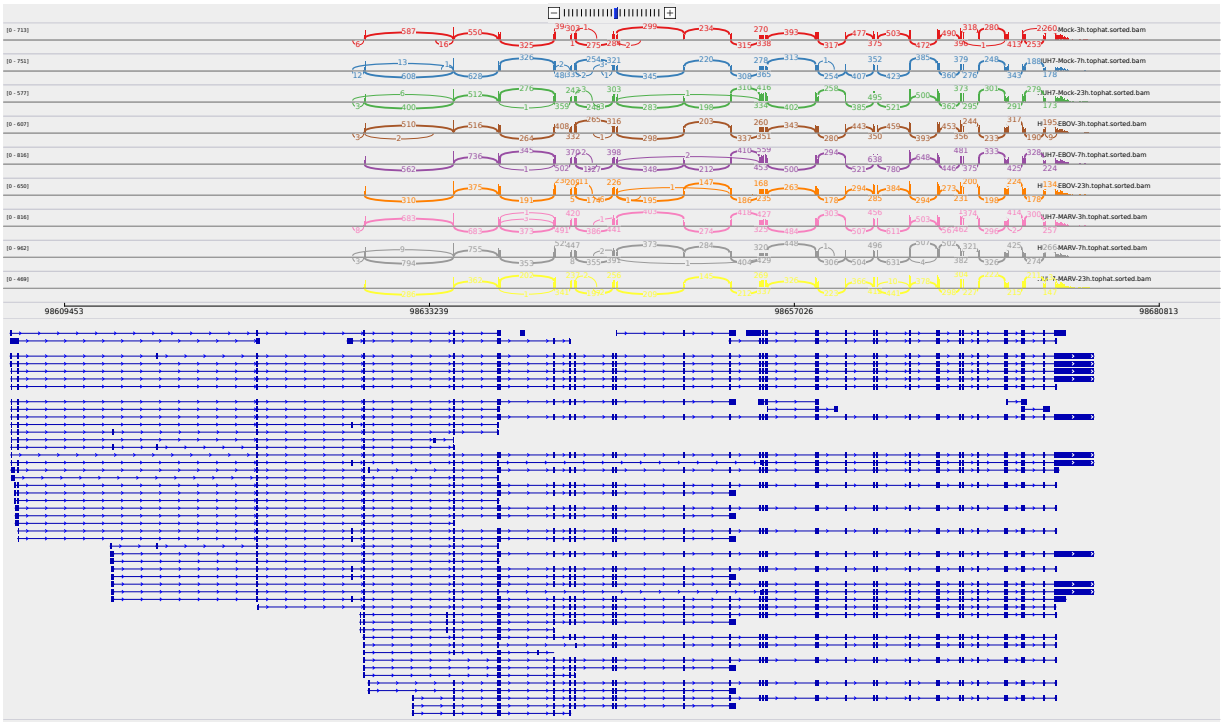

Figure 2: Sashimi plot of gene IPO5.

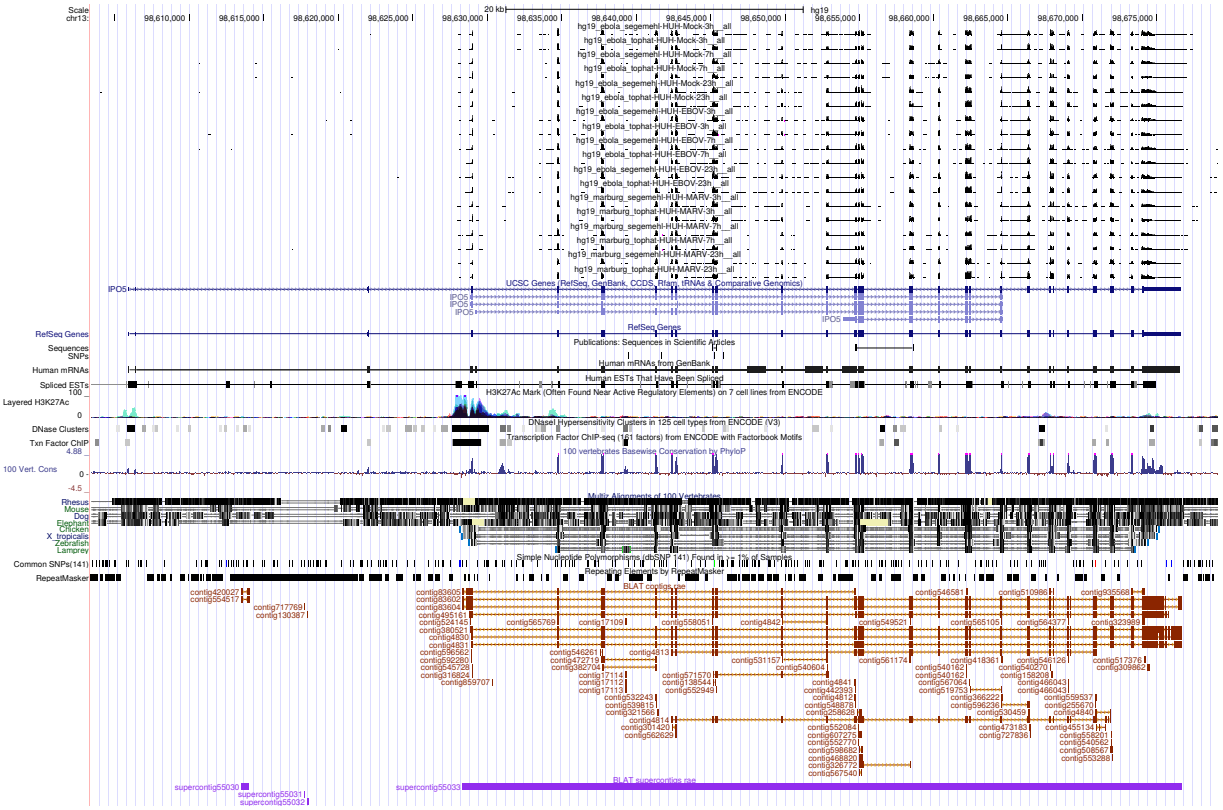

Figure 3: UCSC Genome Browser screenshot of gene IPO5.