

1 LIMK1

There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs and a C-terminal protein kinase domain. LIMK1 is a serine/threonine kinase that regulates actin polymerization via phosphorylation and inactivation of the actin binding factor cofilin. This protein is ubiquitously expressed during development and plays a role in many cellular processes associated with cytoskeletal structure. This protein also stimulates axon growth and may play a role in brain development. LIMK1 hemizyosity is implicated in the impaired visuospatial constructive cognition of Williams syndrome. The gene is uniformly expressed in human. The bat homolog is uniformly expressed, but the 3' end of MARV 7h is higher than in the other datasets.

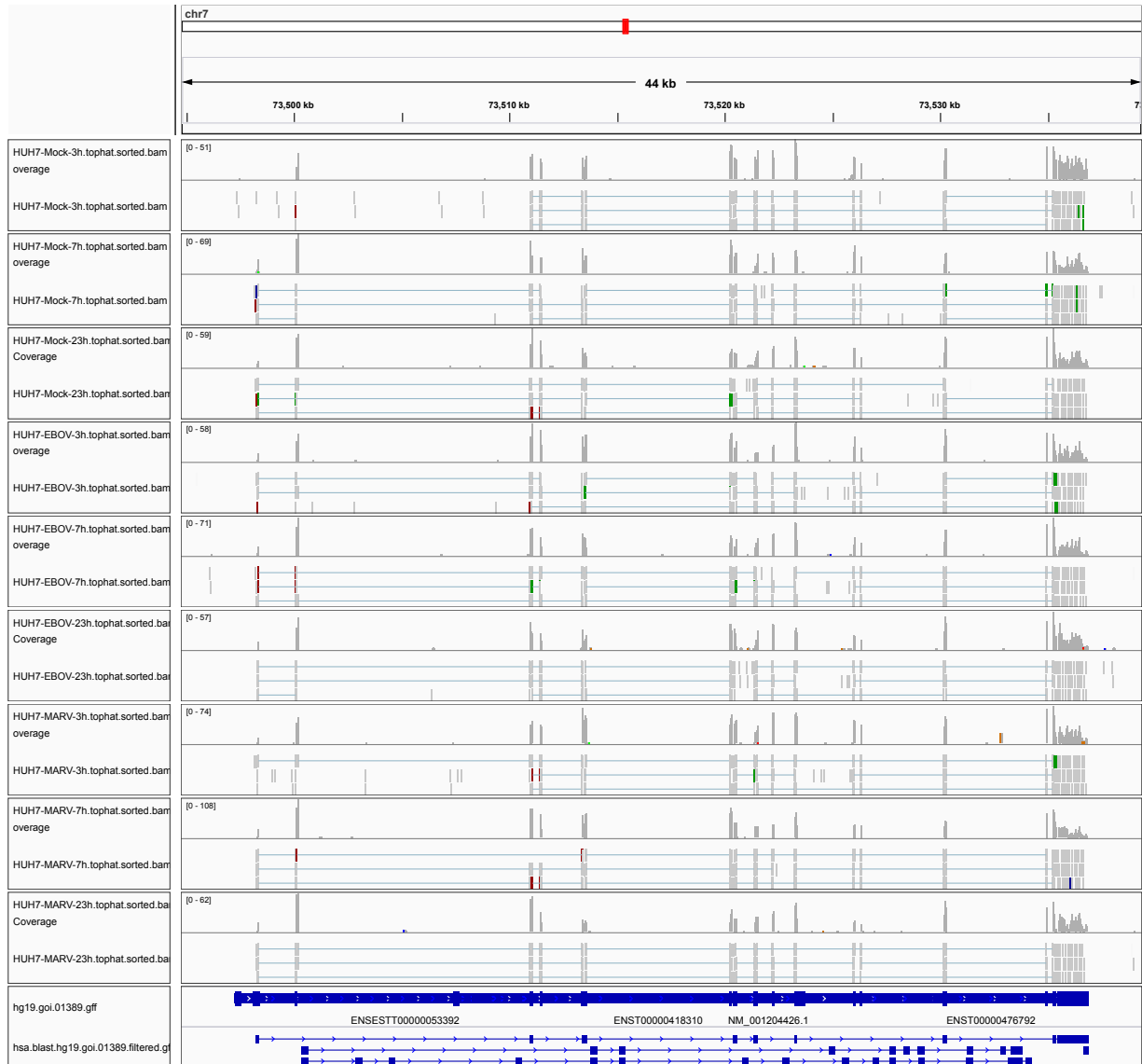


Figure 1: IGV Genome Browser screenshot of gene LIMK1.

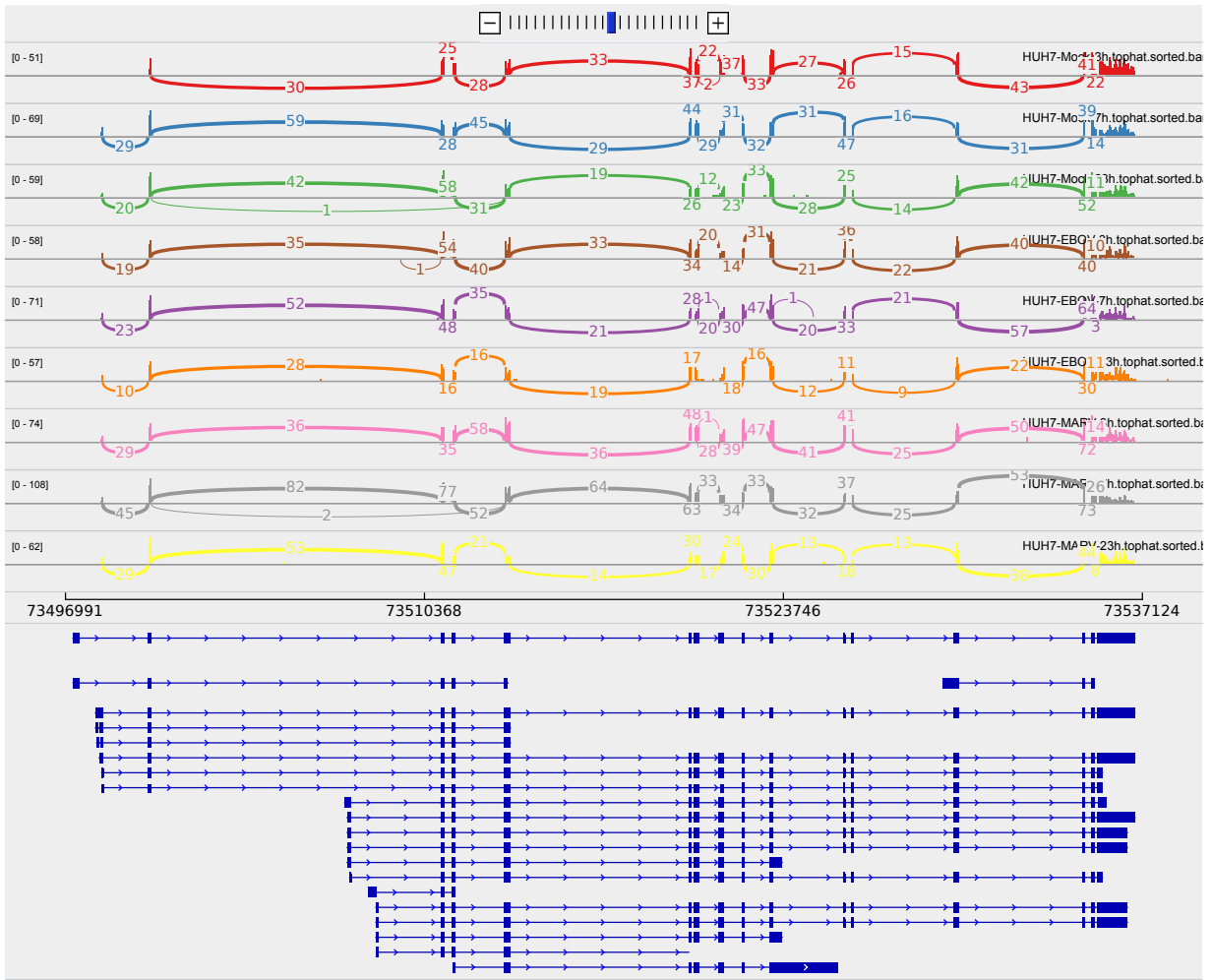


Figure 2: Sashimi plot of gene LIMK1.

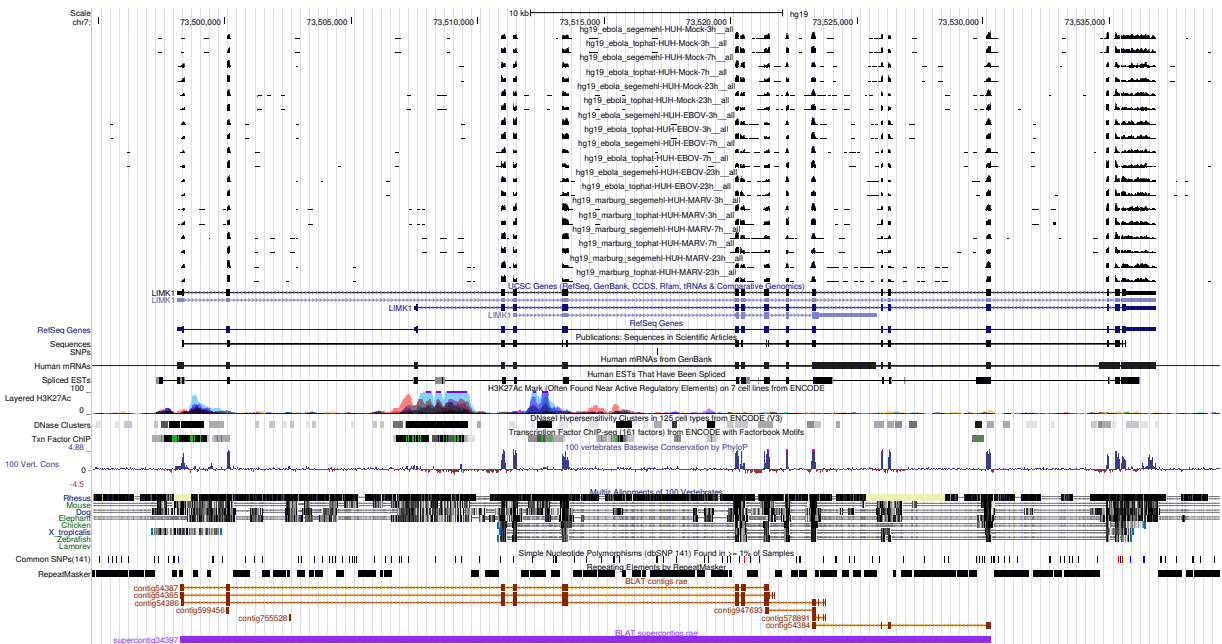


Figure 3: UCSC Genome Browser screenshot of gene LIMK1.