

1 RAF1

This gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinase kinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual specificity protein kinases MEK1 and MEK2, which in turn phosphorylate to activate the serine/threonine specific protein kinases, ERK1 and ERK2. Activated ERKs are pleiotropic effectors of cell physiology and play an important role in the control of gene expression involved in the cell division cycle, apoptosis, cell differentiation and cell migration. Mutations in this gene are associated with Noonan syndrome 5 and LEOPARD syndrome 2.

Well expressed in human and in the bat homolog. Some minor fluctuations in expression levels, but nothing very significant. There is some intron expression in human between exons 4 to 5, but in all samples.

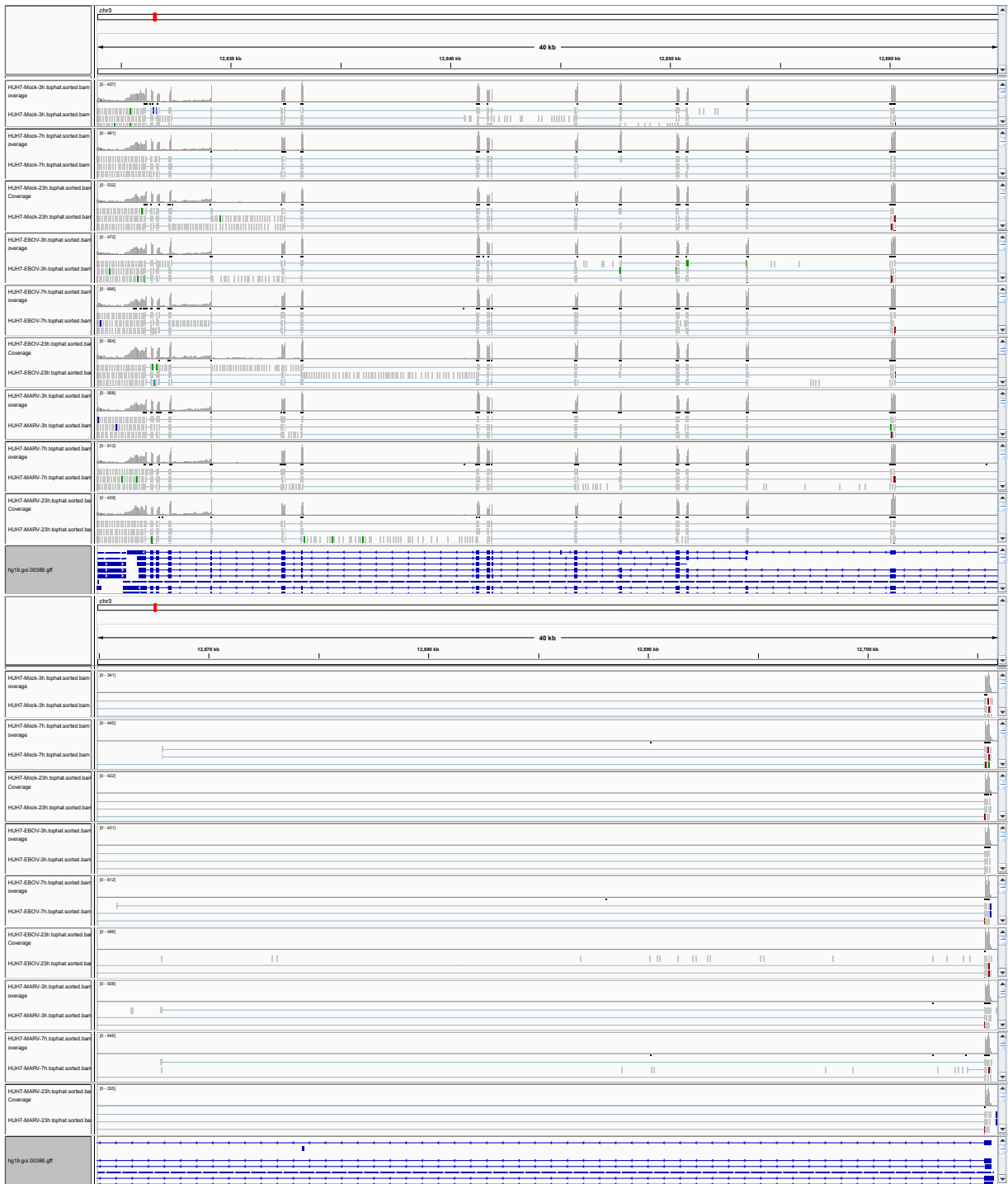


Figure 1: IGV Genome Browser screenshot of gene RAF1.

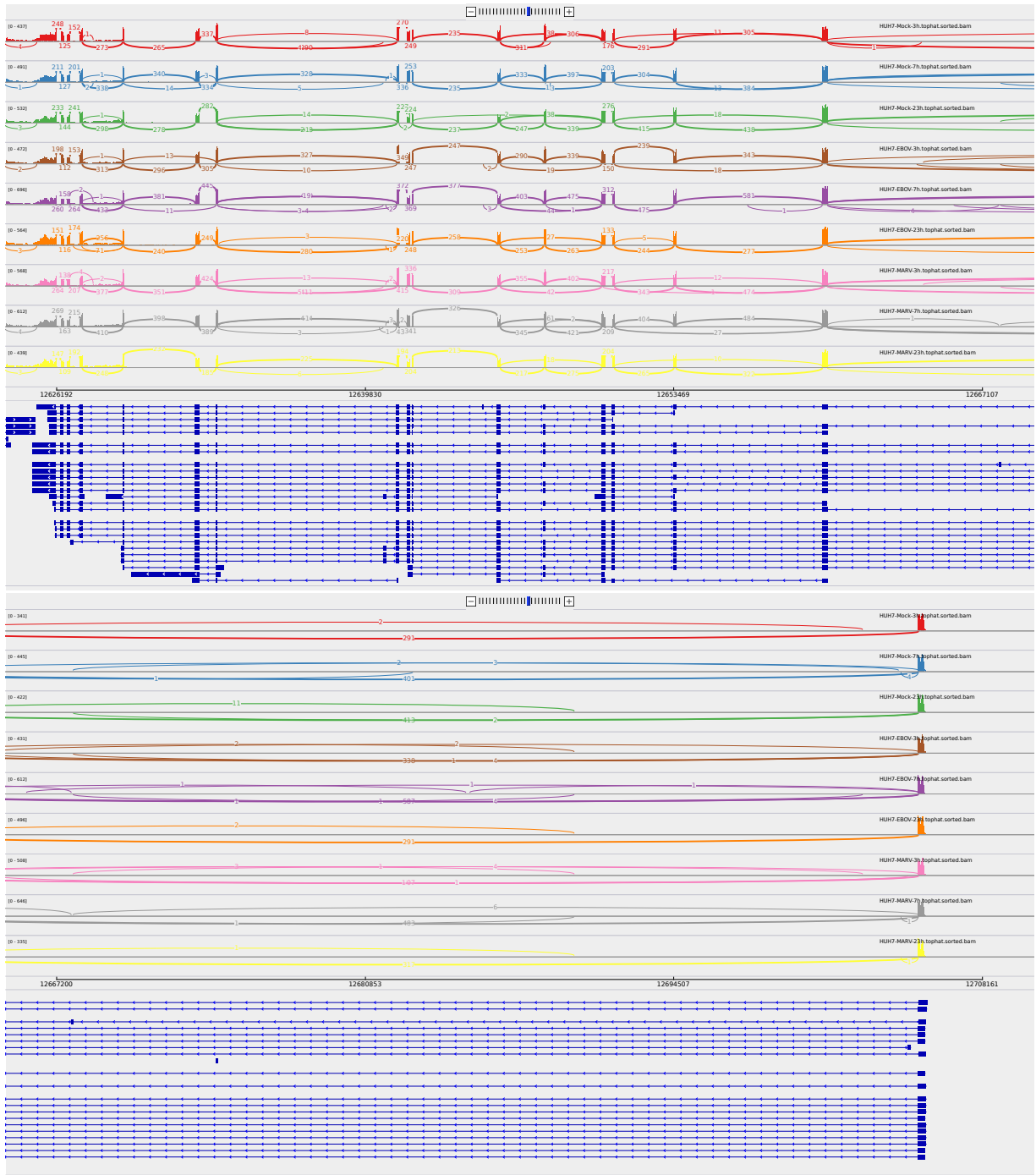


Figure 2: Sashimi plot of gene *RAF1*.

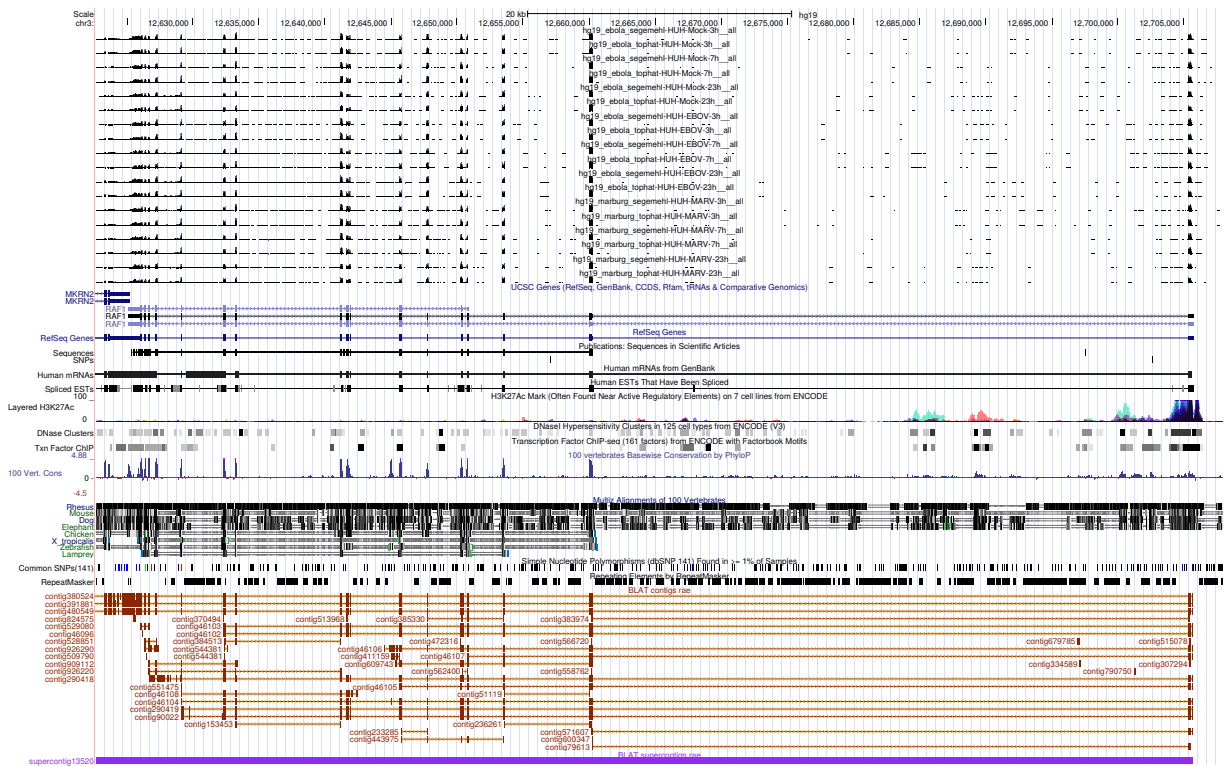


Figure 3: UCSC Genome Browser screenshot of gene RAF1.