

You will first study its location in the human genome and its transcriptional structure, according to the Ensembl genome browser. Go to the browser at <https://www.ensembl.org/> and look for the gene symbol *ARL6* using the search box. Answer the following questions:

- **Symbol and name of the gene.** **Name:** *ARL6* **Symbol:** HGNC
- **Chromosomal location.** You must include the chromosome, start coordinate, end coordinate, and strand. **Chromosome 3: 97,764,521-97,801,229, forward strand**

Navigate to the *Location* tab:

- **Genomic context.** Closer upstream (closest to its 5' end) and downstream (closest to its 3' end) protein-coding genes, presence of non-protein coding genes between the nearest upstream and downstream protein-coding genes. **No question is asked**

Return to the *Gene* tab. Regarding the transcriptional structure of the gene (consider only *GENCODE basic* transcripts):

- **Number of different transcripts and their lengths** (how many of them encode a protein?) **There are 8 different transcripts of length 3988 bps, 1630 bps, 1590 bps, 937 bps, 675 bps, 851 bps, 553 bps.**
- **Number of different proteins.** **4 different proteins CCDS2928, CCDS93329, and 2 transcripts have undefined proteins**
- **Number of constitutive exons** (present in all the transcripts) **and alternative exons** (only present in some transcripts)**n**
- **Alternative splicing mechanisms**

Include a caption of the gene region as displayed in Ensembl and indicate constitutive and alternative exons, as well as alternative splicing mechanisms.

Highlight some other relevant information of the gene you may find **in other databases** discussed in this topic.

Create a document and save the information you found. Submit the document here.