IG General rules for Gene names

Examples

IGH	V	1	-	3
IGL	V	2	-	8
IGK	J	5		

IG General rules for Gene names

Locus

If Immunoglobulin Heavy chain
- Use IGH

If Immunoglobulin Lambda chain
- Use IGL

If Immunoglobulin Kappa chain
- Use IGK

Gene type

If V-GENE
- Use V

If D-GENE
- Use D

If J-GENE
- Use J

If C-GENE
- For IGK
  - Use C
- For IGL
  - If one C-GENE
    - Use C
  - If more than one C-GENE
    - Cluster J-C (IGLJ1, IGLC1, IGLJ2, IGLC2...)
- For IGH
  - Use the letter (and eventually number) corresponding to the encoded subclass (IGHM, IGHD, IGHG3,...).

Gene subgroup, Cluster or Subclass

If V-GENE
- If nucleotide sequence identity in V-REGION ≥75%
  - Assign to subgroup
  - Use Arabic positive number
  - Subgroup number determination : comparing with the subgroups of the most phylogenetically related species annotated by IMGT, if feasible. If necessary, a new species-specific subgroup may be created. In ambiguous cases, the CDR-IMGT lengths, L-V-GENE-UNIT sequences, and promoter components may also be considered.
- If nucleotide sequence identity in V-REGION < 75%
  - Is pseudogene and cannot be assigned to subgroup
  - Assign to a clan with a Roman numeral between parentheses

If D-GENE
- Cluster or set number determination : based on nucleotide sequence identity and position

If J-GENE
- Cluster or set number determination : based on nucleotide sequence identity and position and consider positions in D-J-C or J-C clusters

If C-GENE
- Class and subclass determination :according to
  - the % of identity of sequences (all exons);
  - the prototypes (number of exons);
  - comparing the relative order with the closest species
- For IGL
  - Assign cluster number (e.g., IGLJ1, IGLC1)
- For IGH
  - Assign subclass number based on sequence identity and prototypes.

Gene Position

If the gene is mapped
- V-GENEs: Use dash and relative position from 3' end of locus
- D-GENEs: Use dash and relative position from 5' end of locus
- J-GENEs: Use dash and relative position from 5' end of locus
- C-GENEs: Position/order from 5' to 3'

If the gene is unmapped
- Use "S" and incremented number for temporary designation

If the gene is Orphon
- Add "/OR" and chromosome number, dash, and specific gene number/letter

Im Muno Gene Tics Information system®

IG General rules for Allele names

Examples

IGHV1-3	*	02
IGLV2-8	*	01
IGKJ5	*	01

The first allele has the number *01 and is considered as reference sequence; other alleles are designated by increasing numbers (*02, *03, ...) based, if possible, on chronological order of their publication, and/or confirmation of data by different authors.