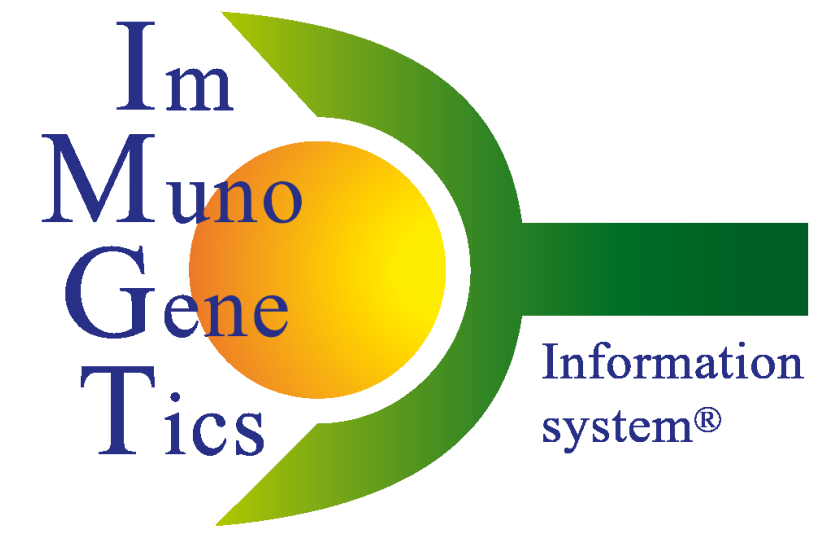


IG General rules for Gene names



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 $\geq 75\%$

- 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'

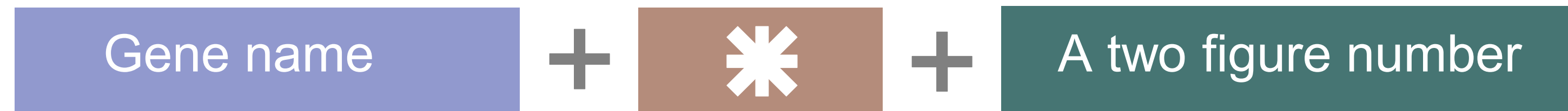
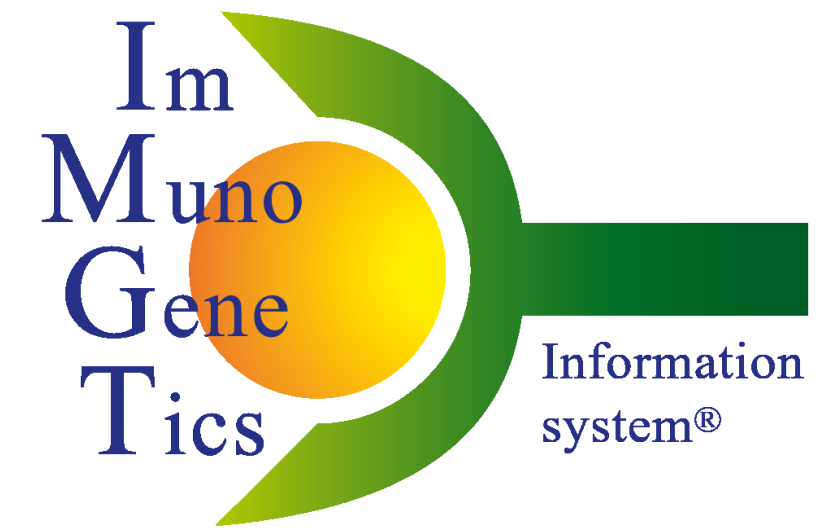
If the gene is unmapped

- Use "S" and incremented number for temporary designation

If the gene is Orphon

- Add "/OR" and chromosome number, dash, and specific gene number/letter

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.