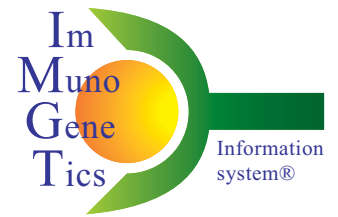


IMGT-ONTOLOGY for immunogenetics and immunoinformatics: IgSF and MhcSF revisited

V. Giudicelli, E. Duprat, Q. Kaas, C. Ginestoux and M.-P. Lefranc



<http://imgt.cines.fr>

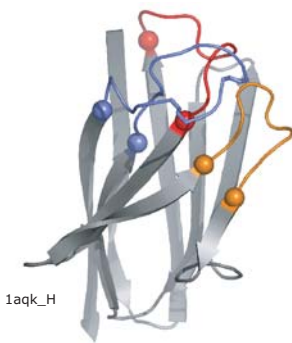
IMGT the international ImMunoGeneTics information system®, LIGM, UM2, CNRS UPR1142, IGH
141 rue de la Cardonille, 34396 Montpellier Cedex 05, France - lefranc@ligm.igh.cnrs.fr

IMGT, the international ImMunoGeneTics information system®, created in 1989 at Montpellier, France (CNRS and Université Montpellier II)

- is the international reference in immunogenetics and immunoinformatics
- contains:
 - immunoglobulin superfamily (IgSF) proteins [immunoglobulins (IG), T cell receptors (TR), and proteins other than IG and TR with at least one domain of V type or C type]
 - MHC superfamily (MhcSF) proteins [major histocompatibility complex (MHC) and proteins other than MHC with domains of G type]
- provides standardized data based on the IMGT-ONTOLOGY concepts
- uses IMGT unique numbering for domains of V type (V, V-LIKE), C type (C, C-LIKE) and G type (G, G-LIKE)

3D structures

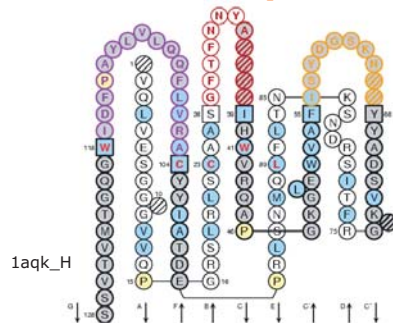
IgSF domain of V type



Lefranc, M.-P. et al *Dev. Comp. Immunol.* 27, 55-77 (2003)

IMGT Colliers de Perles

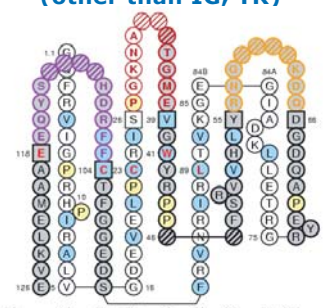
V-DOMAIN (IG, TR)



IGHV-D-J
Kaas Q et al, *Nucl. Acids Res.* 32, D208-D210 (2004)

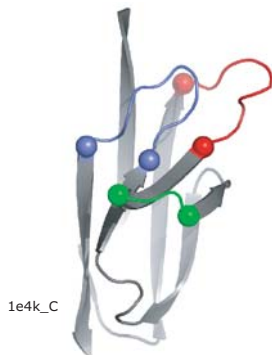
IMGT Colliers de Perles

V-LIKE-DOMAIN (other than IG, TR)



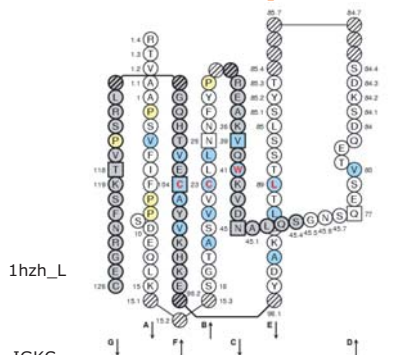
MOG
Duprat, E. et al., *Recent Res. Develop. Human Genet.*, 2, 111-136 (2004)

IgSF domain of C type



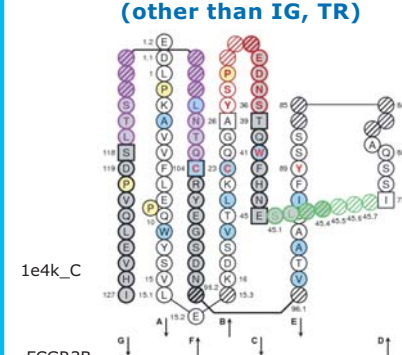
Lefranc, M.-P. et al *Dev. Comp. Immunol.* 29, 185-203 (2005)

C-DOMAIN (IG, TR)



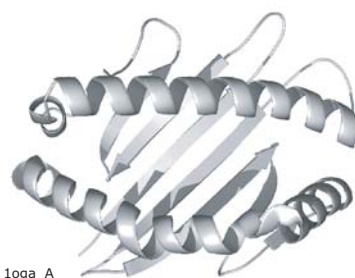
IGKC
Kaas Q et al, *Nucl. Acids Res.* 32, D208-D210 (2004)

C-LIKE-DOMAIN (other than IG, TR)



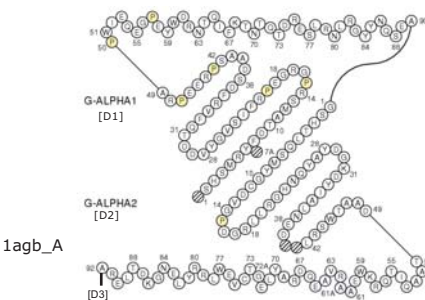
FCGR3B
Bertrand, G. et al., *Tissue Antigens*, 64, 119-131 (2004)

MhcSF domain of G type



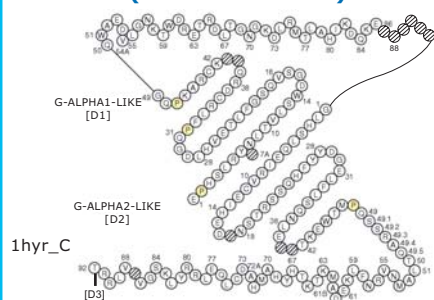
Lefranc, M.-P. et al *Dev. Comp. Immunol.* 29, 917-938 (2005)

G-DOMAIN (MHC)



MHC class I
Kaas, Q. and Lefranc, M.-P., *In Silico Biology (in press)*

G-LIKE-DOMAIN (other than MHC)



MICA
Frigoul, A. et al., *Recent Res. Develop. Human Genet.*, 3, 95-145 (2005)