Product Sheet

QVQ
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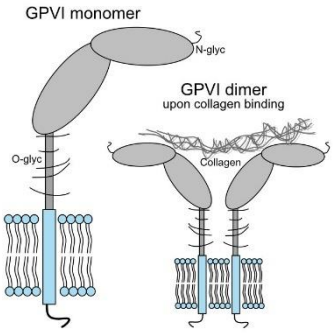
Note:
This product has been generated and purified by Podiceps BV.

Glycoprotein VI

Catalogue no.: Q116
Clone name: S_D4

Product: VHH directed against human glycoprotein VI



Target: Glycoprotein VI (GPVI, GP6) is a platelet membrane glycoprotein of the immunoglobulin superfamily and a receptor for collagen. It is involved in collagen-induced platelet adhesion and activation.[1] Ligand binding to GPVI initiates migration to lipid rafts and subsequent dimerization of GPVI, the formation of a signaling complex with the FcR gamma chain, and the recruitment of downstream signaling proteins, including Src family kinases Fyn and Lyn and the adapter protein LAT.[2] This results in thrombus formation via activation of phospholipase C gamma 2.[3] Transduction of signals by GPVI is mediated in an immunoreceptor-based manner and involves its immune-receptor tyrosine-based activation motif (ITAM). GPVI also binds fibrinogen and fibrin, resulting in the support of growth and stabilization of the thrombus.[4] Mutations in the gp6 gene cause bleeding disorder platelet-type 11 (BDPLT11), characterized by defective platelet activation and aggregation in response to collagen.[5] Also, platelets may be deficient of GPVI due to inherited or acquired loss of the protein, the latter through i.e. autoantibody-induced receptor shedding.[5]

Source: Immunization with and phage-display selection on purified recombinant human GPVI.
Recombinant bivalent VHH (Llama glama), purified from HEK293-E 253 cells using rmp-Protein A affinity purification.

Specificity: Human GPIV.
S_D4 blocks collagen-induced platelet activation, GPVI-mediated fibrinogen binding and P-selectin expression and blocks collagen-induced platelet aggregation.

Formulation: Tagless VHH in PBS.

Mol. Weight: 28.5 kDa
Ext. Coeff. (ε): 51870
A_{280} at 1g/L: 1.8

Storage: Shipped on blue ice. Store at 4˚C or -20˚C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, flow cytometry (FC)

References:
1 Moroi and Jung (1997) Thromb Haemost., 78(!):439-44
2 Arthur et al. (2007) J Biol Chem, 282(42):30434-41
3 Watson et al. (2010) J Thromb Haemost. 8(7):1456-67
4 Munnix et al. (2005) Arterioscler Thromb Vasc Biol 12:2673-8
5 Arthur et al. (2007) Br J Haematol 139(3):363-72