

DARC Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP20261a**Specification**

DARC Blocking Peptide (N-term) - Product Information

Primary Accession [O16570](#)
Other Accession [NP_002027.2](#)

DARC Blocking Peptide (N-term) - Additional Information

Gene ID 2532

Other Names

Atypical chemokine receptor 1, Duffy antigen/chemokine receptor, Fy glycoprotein, GpFy, Glycoprotein D, Plasmodium vivax receptor, CD234, ACKR1, DARC, FY, GPD

Target/Specificity

The synthetic peptide sequence is selected from aa 12-25 of HUMAN ACKR1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DARC Blocking Peptide (N-term) - Protein Information

Name ACKR1

Synonyms DARC, FY, GPD

Function

Atypical chemokine receptor that controls chemokine levels and localization via high-affinity chemokine binding that is uncoupled from classic ligand-driven signal transduction cascades, resulting instead in chemokine sequestration, degradation, or transcytosis. Also known as interceptor (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor. Has a promiscuous chemokine-binding profile, interacting with inflammatory chemokines of both the CXC and the CC subfamilies but not with homeostatic chemokines. Acts as a receptor for chemokines including CCL2, CCL5, CCL7, CCL11, CCL13, CCL14, CCL17, CXCL5, CXCL6, IL8/CXCL8, CXCL11, GRO, RANTES, MCP-1, TARC and also for the malaria parasites *P.vivax* and *P.knowlesi*. May regulate chemokine bioavailability and, consequently, leukocyte recruitment through two distinct mechanisms: when expressed in endothelial cells, it sustains the abluminal to luminal transcytosis of tissue-derived chemokines and their subsequent presentation to circulating

leukocytes; when expressed in erythrocytes, serves as blood reservoir of cognate chemokines but also as a chemokine sink, buffering potential surges in plasma chemokine levels.

Cellular Location

Early endosome. Recycling endosome. Membrane; Multi-pass membrane protein.
Note=Predominantly localizes to endocytic vesicles, and upon stimulation by the ligand is internalized via caveolae. Once internalized, the ligand dissociates from the receptor, and is targeted to degradation while the receptor is recycled back to the cell membrane

Tissue Location

Found in adult kidney, adult spleen, bone marrow and fetal liver. In particular, it is expressed along postcapillary venules throughout the body, except in the adult liver. Erythroid cells and postcapillary venule endothelium are the principle tissues expressing duffy. Fy(-A-B) individuals do not express duffy in the bone marrow, however they do, in postcapillary venule endothelium

DARC Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

DARC Blocking Peptide (N-term) - Images**DARC Blocking Peptide (N-term) - Background**

The protein encoded by this gene is a glycosylated membrane protein and a non-specific receptor for several chemokines. The encoded protein is the receptor for the human malarial parasites *Plasmodium vivax* and *Plasmodium knowlesi*. Polymorphisms in this gene are the basis of the Duffy blood group system. Two transcript variants encoding different isoforms have been found for this gene.

DARC Blocking Peptide (N-term) - References

Silva, L.K., et al. Eur. J. Hum. Genet. 18(11):1221-1227(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Le Goff, G.C., et al. Anal. Chem. 82(14):6185-6192(2010)
Di Cristofaro, J., et al. J Mol Diagn 12(4):453-460(2010)
Maestre, A., et al. PLoS ONE 5 (7), E11437 (2010) :