

Goat Anti-Duffy / FY / DARC Antibody
Peptide-affinity purified goat antibody
Catalog # AF1342a**Specification**

Goat Anti-Duffy / FY / DARC Antibody - Product Information

Application	WB, IHC
Primary Accession	Q16570
Other Accession	NP_002027 , 2532
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	35553

Goat Anti-Duffy / FY / DARC Antibody - 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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Duffy / FY / DARC Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Duffy / FY / DARC Antibody - 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

Goat Anti-Duffy / FY / DARC Antibody - Protocols

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

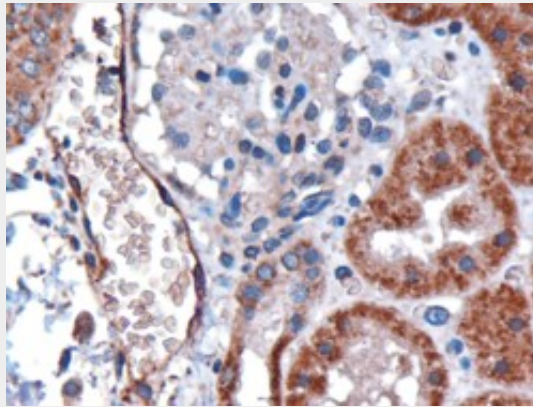
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-Duffy / FY / DARC Antibody - Images



AF1342a (0.1 µg/ml) staining of human liver lysate (35 µg protein in RIPA buffer). Primary

incubation was 1 hour. Detected by chemiluminescence.



AF1342a (3 µg/ml) staining of paraffin embedded human kidney. Microwaved antigen retrieval with citrate buffer pH 6, HRP-staining.

Goat Anti-Duffy / FY / DARC Antibody - 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.

Goat Anti-Duffy / FY / DARC Antibody - References

Acquired antibody responses against *Plasmodium vivax* infection vary with host genotype for duffy antigen receptor for chemokines (DARC). Maestre A, et al. PLoS One, 2010 Jul 15. PMID 20664684.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Dengue hemorrhagic fever is associated with polymorphisms in JAK1. Silva LK, et al. Eur J Hum Genet, 2010 Jun 30. PMID 20588308.
Robust, high-throughput solution for blood group genotyping. Le Goff GC, et al. Anal Chem, 2010 Jul 15. PMID 20560530.
Single PCR multiplex SNaPshot reaction for detection of eleven blood group nucleotide polymorphisms: optimization, validation, and one year of routine clinical use. Di Cristofaro J, et al. J Mol Diagn, 2010 Jul. PMID 20431033.