

CD177 Antibody (clone 4C4) Mouse Monoclonal Antibody Catalog # ALS14100

Specification

CD177 Antibody (clone 4C4) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW Dilution WB, IHC-P, E, IP <u>O8N6O3</u> Human Mouse Monoclonal 46kDa KDa WB~~1:1000 IHC-P~~N/A E~~N/A IP~~N/A

CD177 Antibody (clone 4C4) - Additional Information

Gene ID 57126

Other Names CD177 antigen, Human neutrophil alloantigen 2a, HNA-2a, NB1 glycoprotein, NB1 GP, Polycythemia rubra vera protein 1, PRV-1, CD177, CD177, NB1, PRV1

Target/Specificity Human CD177

Reconstitution & Storage Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions CD177 Antibody (clone 4C4) is for research use only and not for use in diagnostic or therapeutic procedures.

CD177 Antibody (clone 4C4) - Protein Information

Name CD177 (<u>HGNC:30072</u>)

Function

In association with beta-2 integrin heterodimer ITGAM/CD11b and ITGB2/CD18, mediates activation of TNF-alpha primed neutrophils including degranulation and superoxide production (PubMed:21193407). In addition, by preventing beta-2 integrin internalization and attenuating chemokine signaling favors adhesion over migration (PubMed:28807980). Heterophilic interaction with PECAM1 on endothelial cells plays a role in neutrophil transendothelial migration in vitro (PubMed:17580308). However,



appears to be dispensable for neutrophil recruitment caused by bacterial infection in vivo (PubMed:23461681). Acts as a receptor for the mature form of protease PRTN3 allowing its display at the cell surface of neutrophils (PubMed:17244676, PubMed:17244676, PubMed:18462208). By displaying PRTN3 at the neutrophil cell surface, may play a role in enhancing endothelial cell junctional integrity and thus vascular integrity during neutrophil diapedesis (PubMed:23202369).

Cellular Location

Cell membrane; Lipid-anchor, GPI-anchor. Membrane raft; Lipid-anchor, GPI-like-anchor. Secreted. Cytoplasmic granule membrane. Cell projection, lamellipodium. Note=Cell surface expression on neutrophils is increased upon TNF-alpha, fMLP or CXCL8/IL8-mediated stimulation (PubMed:17244676, PubMed:17580308). In neutrophils, stored predominantly in secondary and tertiary granules (PubMed:18462208). Can also be shedded from the cell membrane (PubMed:12239154, PubMed:18462208). Localizes to lamellar protrusions in spreading neutrophils (PubMed:28807980)

Tissue Location

Highly expressed in normal bone marrow and weakly expressed in fetal liver (PubMed:10753836). During neutrophil differentiation, expression begins at the metamyelocyte stage and continues throughout the subsequent stages (at protein level) (PubMed:17244676, PubMed:18462208, PubMed:24926686). Expressed by a subset of mature neutrophils (at protein level) (PubMed:10753836, PubMed:12377969, PubMed:12675722, PubMed:17244676, PubMed:17580308, PubMed:18462208, PubMed:21193407, PubMed:24926686, PubMed:27227454, PubMed:28240246, PubMed:28807980). The percentage of neutrophils expressing CD177 varies across the population (PubMed:17244676, PubMed:27227454). Expressed in granulocytes of patients with polycythemia vera (PV) and with essential thrombocythemia (ET) (PubMed:10753836, PubMed:12377969).

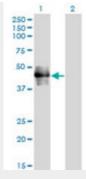
CD177 Antibody (clone 4C4) - Protocols

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

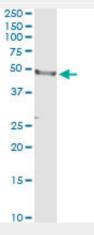
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CD177 Antibody (clone 4C4) - Images





Western blot of CD177 expression in transfected 293T cell line by CD177 monoclonal antibody,...



Immunoprecipitation of CD177 transfected lysate using anti-CD177 monoclonal antibody and Protein...

CD177 Antibody (clone 4C4) - References

Temerinac S.,et al.Blood 95:2569-2576(2000). Kissel K.,et al.Eur. J. Immunol. 31:1301-1309(2001). Kissel K.,et al.Blood 99:4231-4233(2002). Clark H.F.,et al.Genome Res. 13:2265-2270(2003). Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.