

ORDERING INFORMATION**Catalog Number:** AF3855**Lot Number:** YKW01**Size:** 100 µg**Formulation:** 0.2 µm filtered solution in PBS
with 5% trehalose**Storage:** -20° C**Reconstitution:** sterile PBS**Specificity:** human PAR1**Immunogen:** *E. coli*-derived rhPAR1
(aa 27 - 102; 375 - 428)**Ig Type:** goat IgG**Applications:** Western blot
Flow Cytometry
Direct ELISA

Anti-human PAR1 Antibody

Background

Human Proteinase-Activated Receptor 1 (hPAR1), also known as thrombin receptor, is a 45 kDa, 399 amino acid long member of the seven-transmembrane superfamily of cell-surface G protein-coupled receptors. PAR1 is activated by thrombin cleavage of its N-terminal propeptide in the extracellular domain. Human PAR1 is widely expressed in many cell types including endothelial cells, and it has been implicated in a variety of inflammatory responses. Over the regions used as immunogen, human and mouse PAR1 proteins are 58% identical in the region spanning the propeptide and extracellular domains, and 84% identical in the cytoplasmic tail.

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human PAR1 (rhPAR1; aa 27 - 102 and aa 375 - 425; Accession # P25116). Human PAR1 specific IgG was purified by human PAR1 affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a **manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human PAR1 in the applications listed below.

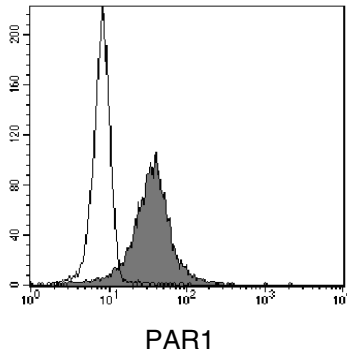
Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human PAR1. The detection limit for rhPAR1 is approximately 5 ng/lane under non-reducing and reducing conditions.

Flow Cytometry - This antibody was tested in flow cytometry using whole blood granulocytes. Dilute this antibody to 50 µg/mL and add 10 µL of the diluted solution to 1-2.5 x 10⁵ cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled antibodies may be visualized by adding a secondary developing reagent such as anti-goat IgG conjugated to a fluorochrome.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human PAR1. The detection limit for rhPAR1 is approximately 0.2 ng/well.

Optimal dilutions should be determined by each laboratory for each application.



Whole blood granulocytes were stained with anti-PAR1 (R&D Systems, Cat. # AF3855, filled histogram) or control antibody (R&D Systems, Cat. # AB-108-C, open histogram) followed by PE-conjugated anti-goat antibody (R&D Systems, Cat. # F0107).