Human uPAR Antibody

Monoclonal Mouse IgG_1 Clone # 62022

Catalog Number: MAB807

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human uPAR in direct ELISAs and Western blots. When used in a sandwich ELISA in combination with the biotinylated anti-human uPAR detection antibody (Catalog # BAF807), no significant cross-reactivity was observed with recombinant mouse uPAR.
Source	Monoclonal Mouse IgG_1 Clone # 62022
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant human uPAR Leu23-Arg303 Accession # Q03405
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

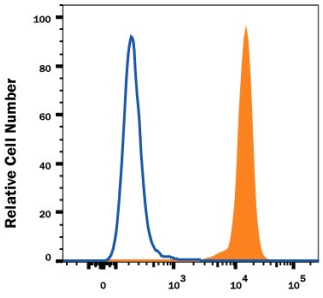
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human uPAR (Catalog # 807-UK) under non-reducing conditions only
Flow Cytometry	0.25 µg/10^6 cells	See Below
Human uPAR Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human uPAR Antibody (Catalog # MAB807)
ELISA Detection	0.1-0.4 µg/mL	Human uPAR Biotinylated Antibody (Catalog # BAF807)
Standard		Recombinant Human uPAR (Catalog # 807-UK)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Blockade of Receptor-ligand Interaction	In a functional ELISA, 0.5-1.5 µg/mL of this antibody will block 50% of the binding of 30 ng/mL of Recombinant Human uPAR (Catalog # 807-UK) to immobilized Recombinant Human u-Plasminogen Activator/Urokinase (Catalog # 1310-SE) coated at 500 ng/mL (100 µL/well). At 10 µg/mL, this antibody will block >90% of the binding.	

DATA

Flow Cytometry



Detection of uPAR in Human Blood Granulocytes by Flow Cytometry. Human peripheral blood granulocytes were stained with Mouse Anti-Human uPAR Monoclonal Antibody (Catalog # MAB807, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The urokinase-type Plasminogen Activator (uPA) is one of two activators that converts the extracellular zymogen plasminogen to plasmin, a serine protease that is involved in a variety of normal and pathological processes that require cell migration and/or tissue destruction. uPA is synthesized and released from cells as a single-chain (sc) pro-enzyme with limited enzymatic activity and is converted to an active two-chain (tc) disulfide-linked active enzyme by plasmin and other specific proteinases. Both the scuPA and tcuPA bind with high-affinity to the cell surface via the glycosyl phosphatidylinositol-linked receptor uPAR which serves to localize the uPA proteolytic activity. The enzymatic activity of scuPA has also been shown to be enhanced by binding to uPAR. Independent of their proteolytic activity, the uPA/uPAR interaction also initiates signal transduction responses resulting in activation of protein tyrosine kinases, gene expression, cell adhesion, and chemotaxis. uPAR can interact with integrins to suppress normal integrin adhesive function and promote adhesion to vitronectin through a high affinity vitronectin binding site on uPAR. uPAR cDNA encodes a 335 amino acid (aa) residue precursor protein with a 22 aa residue signal peptide, five potential N-linked glycosylation sites and a C-terminal GPI-anchor site. An alternate spliced variant of uPAR encoding a secreted soluble form of uPAR also exists. Human and mouse uPAR share approximately 60% aa sequence identity and the receptor-ligand interaction is strictly species-specific.

References:

1. Dear, A.E. and R.L. Medcalf (1988) Eur. J. Biochemistry **252**:185.

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