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Anti-PLAUR Picoband Antibody

Catalog # ABO10132

Product Information

Application	WB
Primary Accession	Q03405
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Urokinase plasminogen activator surface receptor(U-PAR/uPAR)(PLAUR) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5329
Other Names	Urokinase plasminogen activator surface receptor, U-PAR, uPAR, Monocyte activation antigen Mo3, CD87, PLAUR, MO3, UPAR
Calculated MW	36978
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cell membrane . Cell projection, invadopodium membrane . Colocalized with FAP (seprase) preferentially at the cell surface of invadopodia membrane in a cytoskeleton-, integrin- and vitronectin-dependent manner. .
Tissue Specificity	Expressed in neurons of the rolandic area of the brain (at protein level). Expressed in the brain.
Source	Eukaryota
Protein Name	Urokinase plasminogen activator surface receptor(U-PAR/uPAR)
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human PLAUR recombinant protein (Position: E230-S286). Human PLAUR shares 63.2% amino acid (aa) sequence identity with both mouse and rat PLAUR.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	PLAUR (HGNC:9053)
Synonyms	MO3, UPAR
Function	GPI-anchored receptor that recruits and activates the urokinase-type plasminogen activator (uPA) at the cell surface. Activated uPA converts plasminogen into plasmin, initiating extracellular matrix degradation and remodeling (PubMed:1689240, PubMed:15677461). Also binds the extracellular matrix protein vitronectin, promoting cell-matrix adhesion and indirectly integrin signaling (PubMed:17548516, PubMed:25168639, PubMed:28849762). This dual interaction coordinates dynamic changes in cell migration, proliferation, and tissue remodeling (PubMed:28849762).
Cellular Location	[Isoform 1]: Cell membrane; Lipid-anchor, GPI-anchor. Cell projection, invadopodium membrane; Lipid-anchor, GPI-anchor. Note=Colocalized with FAP (seprase) preferentially at the cell surface of invadopodia membrane in a cytoskeleton-, integrin- and vitronectin-dependent manner
Tissue Location	Expressed in neurons of the rolandic area of the brain (at protein level). Expressed in the brain

Background

PLAUR (PLASMINOGEN ACTIVATOR RECEPTOR, UROKINASE-TYPE), also known as UPAR or CD87, is multidomain glycoprotein tethered to the cell membrane with a glycosylphosphotidylinositol (GPI) anchor. PLAUR consists of three different domains of the Ly-6/uPAR/alpha-neurotoxin family. PLAUR is originally identified as a saturable binding site for urokinase on the cell surface. And the gene plays an important role in many normal as well as pathologic processes. The PLAUR gene is localized to 19q13.31. PLAUR is a part of the plasminogen activation system, which in the healthy body is involved in tissue reorganization events such as mammary gland involution and wound healing. PLAUR binds urokinase and thus restricts plasminogen activation to the immediate vicinity of the cell membrane. Thus it seems to be an important player in the regulation of this process. In human coronary artery vascular smooth muscle cells, UPA stimulates cell migration via a UPAR signaling complex containing TYK2 and phosphatidylinositol 3-kinase.

Images

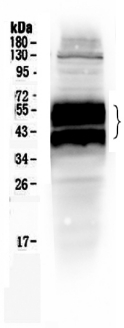


Figure 1. Western blot analysis of PLAUR using anti-PLAUR antibody (ABO10132). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: HELA whole Cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- PLAUR antigen affinity purified polyclonal antibody (Catalog # ABO10132) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP

secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PLAUR at approximately 39KD, 55KD. The expected band size for PLAUR is at 37KD.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.