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PLAUR Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8156c

Product Information

Application	IHC-P, WB, E
Primary Accession	Q03405
Other Accession	Q9GK78
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4065/4066
Calculated MW	36978
Antigen Region	136-166

Additional Information

Gene ID	5329
Other Names	Urokinase plasminogen activator surface receptor, U-PAR, uPAR, Monocyte activation antigen Mo3, CD87, PLAUR, MO3, UPAR
Target/Specificity	This PLAUR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 136-166 amino acids from the Central region of human PLAUR.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PLAUR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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

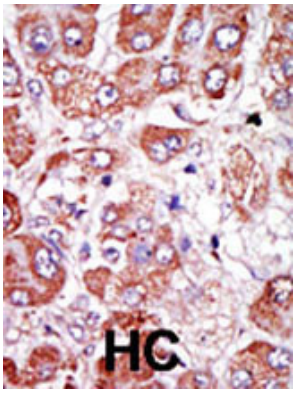
Background

The urokinase-type plasminogen activator receptor is a key molecule in the regulation of cell-surface plasminogen activation and plays an important role in many normal as well as pathologic processes. The human PLAUR cDNA encodes 335 amino acids including a predicted signal peptide of 22 residues and a hydrophobic C-terminal portion.1 It produces a highly glycosylated protein of about 50 kD in monocytes where it is anchored to the plasma membrane by glycosyl-phosphatidylinositol linkage. PLAUR, also known as UPAR, is directly associated with the carbohydrate-binding domain of SELL in the membrane of neutrophils, an association analogous to that between PLAUR and beta-2 integrins.2 PLAUR-mediated calcium mobilization is SELL dependent. UPAR mRNA levels correlate with the invasive potential of endometrial carcinomas and show a 33-fold increase in UPAR mRNA levels in advanced clinical stage endometrial tumors compared with normal endometrial tissue.3 Furthermore, the increase in UPAR mRNA levels correlated linearly with the progression of disease stage. UPAR protein expressioin correlated positively with rate of recurrence and mortality in patients with endometrial cancer.4 UPAR appears to be a useful prognostic marker for advanced endometrial cancer.

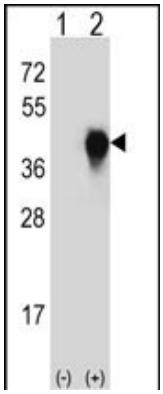
References

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Coleman, J.L., et al., Infect. Immun. 71(10):5556-5564 (2003).
Sturge, J., et al., J. Cell Biol. 162(5):789-794 (2003).
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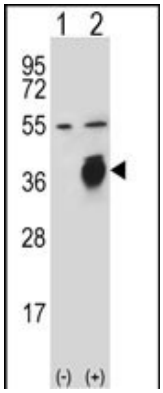
Images



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Western blot analysis of PLAUR (arrow) using rabbit polyclonal PLAUR Antibody (W151) (Cat. #AP8156c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PLAUR gene.



Western blot analysis of PLAUR (arrow) using rabbit polyclonal PLAUR Antibody (W151) (Cat. #AP8156c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PLAUR gene.

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