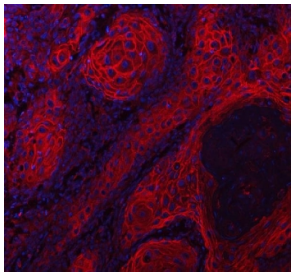
LYPD3 Antibody / Ly6/PLAUR domain-containing protein 3 (RQ8480)

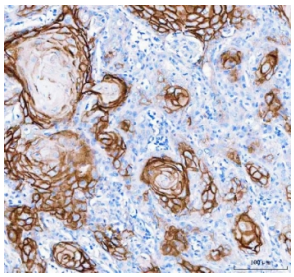
Catalog No.	Formulation	Size
RQ8480	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

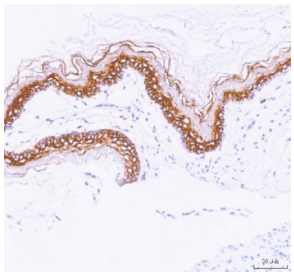
Availability	1-3 days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O95274
Localization	Cell membrane
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Immunofluorescence: 5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This LYPD3 antibody is available for research use only.



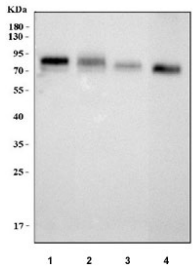
Immunofluorescence analysis of LYPD3 Antibody in human skin cancer tissue. Formalin-fixed, paraffin-embedded human skin cancer sections show strong membranous and peripheral cytoplasmic fluorescence consistent with Ly6/PLAUR domain-containing protein 3 (C4.4A / LYPD3) expression in tumor epithelial cells. LYPD3 antibody signal is visualized in red outlining malignant squamous epithelial cells, while nuclei are counterstained with DAPI (blue). Heat-induced epitope retrieval was performed by steaming tissue sections in pH 8 EDTA buffer for 20 min prior to antibody incubation.



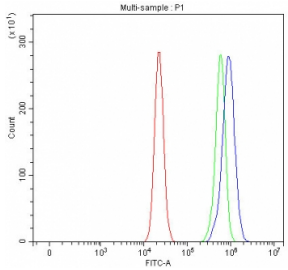
Immunohistochemistry of LYPD3 Antibody in human skin cancer tissue. Formalin-fixed, paraffin-embedded human skin cancer sections demonstrate membranous HRP-DAB brown staining outlining tumor epithelial cells consistent with Ly6/PLAUR domain-containing protein 3 (C4.4A / LYPD3) expression. Positive staining highlights nests of malignant squamous epithelial cells, while surrounding stromal components show minimal signal. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA buffer for 20 min followed by cooling prior to antibody incubation.



IHC staining of FFPE rat stomach tissue with LYPD3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human RT4, 2) human A431, 3) rat stomach and 4) mouse stomach tissue lysate with LYPD3 antibody. Predicted molecular weight ~36 kDa but may be observed at higher molecular weights due to glycosylation.



Flow cytometry testing of fixed and permeabilized human RT4 cells with LYPD3 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= LYPD3 antibody.

Description

Ly6/PLAUR domain-containing protein 3 is a glycosylphosphatidylinositol (GPI)-anchored cell surface protein encoded by the LYPD3 gene and commonly referred to as C4.4A. LYPD3 Antibody recognizes this membrane-associated protein, which belongs to the Ly6/uPAR superfamily characterized by conserved Ly6/PLAUR domains involved in cell signaling and extracellular interactions. LYPD3 is primarily localized to the plasma membrane where it participates in cell adhesion, migration, and epithelial tissue organization. The LYPD3 gene is located on chromosome 19q13.31 and is expressed in several epithelial tissues, particularly within stratified epithelia.

LYPD3 antibody, also referred to as C4.4A antibody and Ly6/PLAUR domain-containing protein 3 antibody in the literature, detects a protein that is frequently associated with epithelial differentiation and tissue remodeling processes. In normal tissues, LYPD3 expression is observed in squamous epithelial cells of the skin, esophagus, and other stratified epithelial surfaces. The protein is anchored to the cell membrane through a GPI linkage, which results in membranous staining patterns in tissue-based analyses. This localization reflects its role in mediating interactions between epithelial cells and the surrounding extracellular environment.

LYPD3 has gained particular attention in cancer biology due to its altered expression in several tumor types. Elevated levels of C4.4A have been reported in squamous cell carcinomas and other epithelial-derived malignancies, where the

protein has been associated with tumor cell migration, invasion, and metastatic potential. Because of this association, LYPD3 is frequently studied as a marker of epithelial tumor progression and cellular motility pathways. Investigators often evaluate LYPD3 expression to better understand mechanisms of tumor invasion and the remodeling of cell adhesion networks during cancer development.

At the molecular level, LYPD3 contains characteristic Ly6/uPAR domains that are structurally related to proteins involved in receptor signaling and immune regulation. Through these domains, LYPD3 can interact with extracellular ligands and cell surface receptors, influencing signaling pathways that regulate cell movement and epithelial barrier integrity. The protein's localization at the cell surface also makes it accessible for antibody-based detection methods used in tissue and cell biology research.

LYPD3 Antibody supports research applications focused on detecting Ly6/PLAUR domain-containing protein 3 expression in normal and disease-associated tissues. Membranous and occasionally cytoplasmic staining patterns correspond with the known localization of C4.4A in epithelial cells, enabling studies of epithelial differentiation, tumor biology, and cell adhesion mechanisms.

Application Notes

Optimal dilution of the LYPD3 antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids L31-E245) was used as the immunogen for the LYPD3 antibody.

Storage

After reconstitution, the LYPD3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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