3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-PLAUR
produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200358**

Product Description

Anti- PLAUR is produced in rabbit using as immunogen a peptide corresponding to a sequence at the C-terminus of human PLAUR (GeneID: 5329), conjugated to KLH. The corresponding sequence is identical in monkey PLAUR. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-PLAUR recognizes human PLAUR. The antibody may be used in various immunochemical techniques including immunoblotting (45/50 kDa) and immunofluorescence. Detection of the PLAUR band by immunoblotting is specifically inhibited by the immunizing peptide.

The urokinase plasminogen activator (uPA) system plays a role in processes important for tumor progression including angiogenesis, tumor growth, and metastasis. This system is composed of a serine protease (uPA), its glycolipid (glycosylphosphatidyl-inositol) anchored receptor (uPAR), and several serine protease inhibitors (serpins) including plasminogen activator inhibitors 1 and 2 (PAI-1 and PAI-2).[1] PLAUR/uPAR (also known as CD87) acts as a receptor for urokinase plasminogen activator. Interestingly, another important uPAR ligand is vitronectin. The binding of uPA and vitronectin to uPAR is not mutually exclusive and uPA stimulates vitronectin binding to uPAR. Given its role in localizing and promoting plasmin formation, uPAR influences many normal and pathological processes related to cell-surface plasminogen activation, degradation of the extracellular matrix, cell migration, leukocyte adhesion, chemotaxis and signal transduction during leukocyte recruitment from the circulation to extravascular sites of inflammation.[2] Indeed, uPAR as been implicated as an anti-cancer target.[3] Its involvement has also been established in epilepsy, language, cognition, communication and central nervous system disorders.[4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1.0 µg/mL is recommended using whole extracts of HEK-293T cells over-expressing human PLAUR.

Immunofluorescence: a working concentration of 1-2 µg/mL is recommended using human HeLa cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Mazar, A.P., *Clin. Cancer Res.*, **14**, 5649-5655 (2008).
2. Béné, M.C., et al., *Leukemia*, **18**, 394–400 (2004).
3. Lund, I.K., et al., *Curr. Drug Targets*, **12**, 1744-1760 (2011).
4. Bruneau, N., and Szepetowski, P., *Curr. Pharm. Des.*, **17**, 1915-1923 (2011).

ST,GG,RC,PHC 02/12-1