

Recombinant human DEP1 protein ab42588

Description

Product name	Recombinant human DEP1 protein
Biological activity	Specific Activity: 268 nmole/min/μg. Assay Conditions: 20 mM HEPES, pH 7.2, 100 mM NaCl, 2 mM EDTA, 1 mM DTT, 1 mM pNPP and DEP1. Assay was done at 30°C for 10 minutes, and the reaction was monitored at 405 nm continuously. Specific activity was calculated based on ϵ pNPP= 18,000 M ⁻¹ cm ⁻¹
Purity	> 95 % SDS-PAGE.
Expression system	Escherichia coli
Accession	<u>Q12913</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	59 kDa
Amino acids	1024 to 1306
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab42588** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Phosphatase Activity Inhibition Assay
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Form	Liquid
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Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.307% Glutathione, 0.0154% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.395% Tris HCl, 0.05% Tween, 0.0584% EDTA, 50% Glycerol (glycerin, glycerine), 0.435% Sodium chloride
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This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function	Tyrosine phosphatase which dephosphorylates or contributes to the dephosphorylation of CTNND1, PDGFRB, MET, RET (variant MEN2A), KDR, LYN, SRC, MAPK1, MAPK3, EGFR, TJP1, OCLN, PIK3R1 and PIK3R2. Plays a role in cell adhesion, migration, proliferation and differentiation. Involved in vascular development. Regulator of macrophage adhesion and spreading. Positively affects cell-matrix adhesion. Positive regulator of platelet activation and thrombosis. Negative regulator of cell proliferation. Negative regulator of PDGF-stimulated cell migration; through dephosphorylation of PDGFR. Positive regulator of endothelial cell survival, as well as of VEGF-induced SRC and AKT activation; through KDR dephosphorylation. Negative regulator of EGFR signaling pathway; through EGFR dephosphorylation. Enhances the barrier function of epithelial junctions during reassembly. Negatively regulates T-cell receptor (TCR) signaling. Upon T-cell TCR activation, it is up-regulated and excluded from the immunological synapses, while upon T-cell-antigen presenting cells (APC) disengagement, it is no longer excluded and can dephosphorylate PLCG1 and LAT to down-regulate prolongation of signaling.
Tissue specificity	Expressed in the promyelocytic cell line HL60, the granulocyte-macrophage colony-stimulating factor-dependent leukemic cell line F-36P, and the interleukin-3 and erythropoietin-dependent leukemic cell line F-36E. Expressed predominantly in epithelial cells and lymphocytes. Enhanced expression at high cell density.
Sequence similarities	Belongs to the protein-tyrosine phosphatase family. Receptor class 3 subfamily. Contains 9 fibronectin type-III domains. Contains 1 tyrosine-protein phosphatase domain.
Post-translational modifications	N- and O-glycosylated.
Cellular localization	Cell membrane. Cell projection > ruffle membrane. Cell junction. After T cell stimulation, it is temporarily excluded from immunological synapses.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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