

Recombinant Human DUSP3/VHR Protein (His & GST Tag)

Catalog No. PKSH031862

Note: Centrifuge before opening to ensure complete recovery of vial contents.

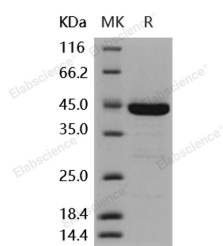
Description

Synonyms	Dual specificity protein phosphatase 3;DUSP3;Dual specificity protein phosphatase VHR;Vaccinia H1-related phosphatase;VHR
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Pro 185
Accession	P51452
Calculated Molecular Weight	48.3 kDa
Observed molecular weight	44 kDa
Tag	N-His-GST
Bioactivity	Not validated for activity

Properties

Purity	> 96 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 2mM GSH Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 96 % as determined by reducing SDS-PAGE.

Background

Vaccinia H1-related phosphatase (VHR) is classified as a dual-specificity phosphatase (DUSP); and the other name is dual-

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specificity phosphatase 3 (DUSP3). DUSPs are a heterogeneous group of protein phosphatases that can dephosphorylate both phosphotyrosine and phosphoserine/phosphothreonine residues within the one substrate. Unlike typical DUSPs; VHR lacks mitogen-activated protein kinase (MAPK)-binding domain; and shows poor activity against MAPKs. VHR often act on bisphosphorylated protein substrates; it displays a strong preference for dephosphorylating phosphotyrosine residues over phosphothreonine residues. VHR has been identified as a novel regulator of extracellular regulated kinases (ERKs). VHR is responsible for the rapid inactivation of ERK following stimulation and for its repression in quiescent cells. VHR is a negative regulator of the Erk and Jnk pathways in T cells and; therefore; may play a role in aspects of T lymphocyte physiology that depend on these kinases.