

Recombinant Human DUSP3/VHR Protein

Catalog Number: PKSH031861

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

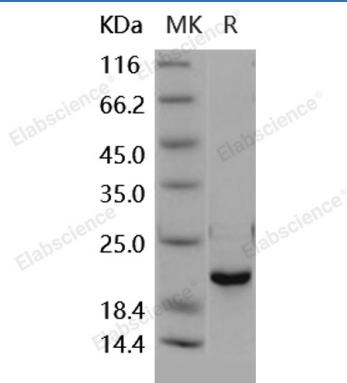
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human DUSP3/VHR protein Met 1-Pro 185
Calculated MW	20.6 kDa
Observed MW	21 kDa
Accession	P51452
Bio-activity	Measured by hydrolysis of 250 µM 3-O-methyl fluorescein phosphate (OMFP). The specific activity is > 1.0 µmol/min/m

Properties

Purity	> 95 % 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, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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



> 95 % 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-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.

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