

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

**Catalog Number:** PKSH031862

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

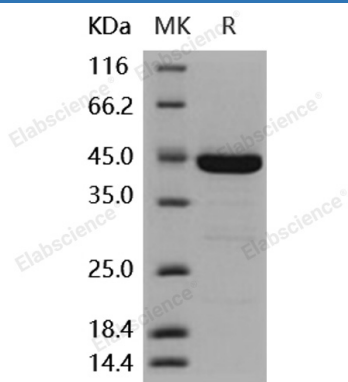
### Description

<b>Species</b>	Human
<b>Source</b>	Baculovirus-Insect Cells-derived Human DUSP3/VHR protein Met 1-Pro 185, with an N-terminal His & GST
<b>Calculated MW</b>	48.3 kDa
<b>Observed MW</b>	44 kDa
<b>Accession</b>	P51452
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 96 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 2mM GSH 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 96 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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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.