Recombinant DUS3 protein (His tag)

Catalog Number	544675
Synonyms	Dual specificity protein phosphatase VHR; Vaccinia H1-related phosphatase; VHR
Species	Human
Expression System	E. coli
Accession	P51452
Molecular Weight	Predictes a molecular mass of 22.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	1-185
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-185 aa (P51452) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Dual specificity protein phosphatase 3 (DUSP3) fragment (residues 1-185), encompassing the complete Tyrosine-protein phosphatase domain. This high-purity protein is an essential tool for investigating the dephosphorylation mechanisms of ERK1/ERK2 and other tyrosine-phosphorylated substrates in cellular signaling pathways. Dual specificity protein phosphatase 3 (DUSP3), also known as VHR, is a human enzyme that exhibits catalytic activity toward both phosphotyrosine and phosphoserine residues, with a strong preference for phosphotyrosines. It specifically dephosphorylates and inactivates ERK1 and ERK2, key regulators of mitogen-activated protein kinase (MAPK) signaling pathways involved in cell proliferation and differentiation. DUSP3 localizes primarily to the nucleus, with additional presence in the cytoplasm and cytoskeleton, indicating its role in modulating spatially distinct signaling events. The provided recombinant fragment (1-185) contains the full functional phosphatase domain, enabling targeted studies of its substrate specificity and regulatory functions.