Recombinant DUS1 protein (His tag)

Catalog Number	537657
Synonyms	Dual specificity protein phosphatase hVH1; Mitogen-activated protein kinase phosphatase 1; MAP kinase phosphatase 1; MKP-1; Protein-tyrosine phosphatase CL100
Species	Human
Expression System	E. coli
Accession	P28562
Molecular Weight	Predictes a molecular mass of 35.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-314
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-314 aa (P28562) 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 Human Dual Specificity Protein Phosphatase 1 (DUSP1) Fragment (aa 1-314). This high-purity protein includes the complete Rhodanese and Tyrosine-protein phosphatase domains, offering a specialized tool for investigating MAP kinase regulation and phosphatase mechanisms in cellular signaling pathways. Dual Specificity Protein Phosphatase 1 (DUSP1) is a key regulatory enzyme that dephosphorylates MAP kinase ERK2 at both threonine and tyrosine residues, playing a critical role in controlling meiotic cell cycle progression. As a mitogen-activated protein kinase phosphatase (MKP-1), it fine-tunes MAPK signaling dynamics. The protein localizes to the nucleus, where it modulates transcriptional responses to extracellular stimuli. This recombinant fragment preserves the essential functional domains required for studying its specific phosphatase activities and interaction networks.