Recombinant DUS4 protein (His tag)

Catalog Number	542610
Synonyms	Dual specificity protein phosphatase hVH2; Mitogen-activated protein kinase phosphatase 2; MAP kinase phosphatase 2; MKP-2
Species	Human
Expression System	E. coli
Accession	Q13115
Molecular Weight	Predictes a molecular mass of 19.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	2-160
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 2-160 aa (Q13115) 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 4 (DUSP4) fragment (residues 2-160) from Homo sapiens, encompassing the functional Rhodanese domain. This high-purity protein is an essential tool for investigating MAP kinase regulation and domain-specific phosphatase mechanisms in cellular signaling pathways. Dual specificity protein phosphatase 4 (DUSP4) is a critical regulator of mitogenic signal transduction, specifically dephosphorylating both threonine and tyrosine residues on MAP kinases ERK1 and ERK2, thereby modulating their activity. Located in the nucleus, DUSP4 functions as a mitogen-activated protein kinase phosphatase (MKP-2) to control cellular responses to growth signals. The provided fragment includes the Rhodanese domain (residues 41-159), enabling focused studies on domain-specific phosphatase functions and their roles in ERK pathway regulation.