Recombinant DUS12 protein (His tag)

Catalog Number	546247
Synonyms	Dual specificity tyrosine phosphatase YVH1
Species	Human
Expression System	E. coli
Accession	Q9UNI6
Molecular Weight	Predictes a molecular mass of 39.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-340
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-340 aa (Q9UNI6) 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 12 (DUSP12) fragment (residues 1-340) is a high-purity protein designed for functional studies. This fragment fully encompasses the Tyrosine-protein phosphatase domain, enabling researchers to investigate its dual-specificity phosphatase activity and regulatory roles in cellular signaling pathways. Dual specificity protein phosphatase 12 (DUSP12) is a human enzyme capable of dephosphorylating both phosphotyrosine and phosphoserine/phosphothreonine residues. It demonstrates phosphatase activity with synthetic substrates like 6,8-difluoro-4-methylumbelliferyl phosphate and can dephosphorylate glucokinase in vitro. The protein is primarily localized to the nucleus but is also detected in a mesh-like pattern in the cytosol, suggesting roles in both nuclear and cytoplasmic signaling processes. This recombinant fragment provides a focused tool for studying the specific functions of its catalytic domain in phosphorylation-dependent cellular regulation.