Recombinant DUS29 protein (His tag)

Catalog Number	545183
Synonyms	Dual specificity phosphatase 27; Dual specificity phosphatase DUPD1
Species	Human
Expression System	E. coli
Accession	Q68J44
Molecular Weight	Predictes a molecular mass of 23.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	32-220
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 32-220 aa (Q68J44) 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 DUSP29 (32-220) is a high-purity protein fragment encompassing the essential tyrosine-protein phosphatase domain of Dual specificity phosphatase 29. This product is engineered for studying dephosphorylation mechanisms, AMPK activation, and MAPK signaling modulation in skeletal muscle and glucose homeostasis research. Dual specificity phosphatase 29 (DUSP29) is a human enzyme capable of dephosphorylating phosphotyrosine, phosphoserine, and phosphothreonine residues, with a preference for phosphotyrosine substrates. It plays a critical role in intracellular signaling by regulating pathways such as the MAPK1/2 cascade, influencing muscle cell differentiation, development, and atrophy. In skeletal muscle, DUSP29 contributes to systemic glucose homeostasis through AMPK activation. The protein localizes to both the cytoplasm and nucleus, underscoring its broad regulatory functions in cellular signaling networks.