Recombinant NDKB protein (His tag)

Catalog Number	546844
Synonyms	NDK B; NDP kinase B; C-myc purine-binding transcription factor PUF; Histidine protein kinase NDKB; nm23-H2
Species	Human
Expression System	E. coli
Accession	P22392
Molecular Weight	Predictes a molecular mass of 18.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-152
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-152 aa (P22392) 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 Nucleoside Diphosphate Kinase B (NDK B) Fragment (1-152) is a high-purity, stable protein designed for structural and biochemical studies. This fragment encompasses the full-length soluble domain, preserving key functional regions for research on nucleoside triphosphate synthesis, transcriptional regulation, and G-quadruplex DNA interactions. Nucleoside Diphosphate Kinase B (encoded by NME2) is a multifunctional enzyme in humans that catalyzes the synthesis of nucleoside triphosphates via a phosphoryl transfer mechanism. It plays critical roles beyond metabolism, including transcriptional activation of the MYC oncogene by binding to guanine-rich sequences in the MYC promoter and stabilizing G-quadruplex DNA structures. The protein also exhibits histidine kinase activity and regulates Rho signaling pathways through interactions with AKAP13/LBC. Localized primarily in the cytoplasm, it dynamically associates with lamellipodia and ruffles during cell spreading, implicating it in cytoskeletal organization. The full-length protein's diverse functions make it a significant target for cancer, signaling, and gene regulation research.