Recombinant EF2K protein (His tag)

Catalog Number	544035
Synonyms	eEF-2 kinase; eEF-2K; Calcium/calmodulin-dependent eukaryotic elongation factor 2 kinase
Species	Human
Expression System	E. coli
Accession	O00418
Molecular Weight	Predictes a molecular mass of 31.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	82-338
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 82-338 aa (O00418) 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 fragment of human Eukaryotic elongation factor 2 kinase (eEF-2K), encompassing amino acids 82-338, which includes the complete Alpha-type protein kinase domain. This fragment serves as a specialized tool for investigating the kinase activity and regulatory mechanisms of eEF-2K in protein synthesis control. Eukaryotic elongation factor 2 kinase (eEF-2K) is a calcium/calmodulin-dependent threonine kinase that plays a critical role in regulating protein synthesis by controlling peptide chain elongation rates. Upon activation by upstream kinases such as AMPK or TRPM7, eEF-2K phosphorylates elongation factor EEF2, rendering it unable to bind ribosomes and thereby reducing protein synthesis. This regulatory mechanism is essential for cellular adaptation under various stress conditions. The provided fragment (82-338) contains the functional Alpha-type protein kinase domain, enabling focused studies on kinase function and substrate interactions.