Recombinant NEMO protein (His tag)

Catalog Number	533460
Synonyms	Inhibitor of nuclear factor kappa B kinase subunit gamma; DmIKKgamma; NEMO homolog
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9GYV5
Gene ID	37967
Molecular Weight	Predictes a molecular mass of 30.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	84-323
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 84-323 aa (Q9GYV5) 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	This recombinant protein product features a stable and soluble fragment (residues 84-323) of Drosophila melanogaster NF-kappa-B essential modulator (NEMO homolog), also known as Inhibitor of nuclear factor kappa B kinase subunit gamma (DmIKKgamma). This fragment was computationally optimized for structural integrity and solubility, making it ideal for structural biology studies, biochemical assays, and functional investigations of innate immune signaling pathways. The full-length NF-kappa-B essential modulator (NEMO homolog) is encoded by the key gene in Drosophila melanogaster and serves as an essential signaling component in the innate immune response. It transmits lipopolysaccharide (LPS) signals that lead to degradation of the Cact protein, which is required for activation of NF-kappa-B (Rel) transcription factors. This process is critical for mounting an effective antibacterial immune response. The protein localizes to both the cytoplasm and nucleus, reflecting its role in signal transduction and gene regulation. The provided fragment represents a structurally stable region selected to facilitate experimental analysis of this important immune signaling molecule.