

# Recombinant Human NEMO Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP50705

Size: 10ug, 100ug

Protein Name: NF-kappa-B essential modulator (NEMO) (FIP-3) (Ikb kinase-associated protein 1) (IKKAP1) (Inhibitor of nuclear factor kappa-B kinase subunit gamma) (I-kappa-B kinase subunit gamma) (IKK-gamma) (IKKG) (Ikb kinase subunit gamma) (NF-kappa-B essential modifier)

Synonym: IKBKG, FIP3, NEMO

UniProt ID: Q9Y6K9

UniProt Link: [www.uniprot.org/uniprotkb/Q9Y6K9/entry](http://www.uniprot.org/uniprotkb/Q9Y6K9/entry)

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 419 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MNRHLWKSQ LCEMVQPSGGPAADQDVLGEESPLGKPAM LHPSEQGAPETLQRCLEENQELRDAI  
RQSNQILRERCEELLHFQASQREEKEFLMCKFQEARKLVERLGLEKLDLKRQKEQALREVEHLKRC  
QQQMAEDKASVKAQVTSLLGELQESQSRLEAATKECQALEGRARAASEQARQLESEREALQQQHS  
VQVDQLRMQGQSVEAALRMERQAASEEKRKLAQLQVAYHQLFQEYDNHIKSSVVGSEKRGMQLE  
DLKQQLQQAEEALVAKQEVIDKLKEEAQHKIVMETVPVLKAQADIYKADFQAERQAREKLAEEKELL  
QEQLQLQREYSKLKASCQESARIEDMRKRHVEVSQAPLPPAPAYLSSPLALPSQRRSPPEEPPDF  
CCPKCQYQAPDMDTLQIHVMECIE

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant NF-kappa-B essential modulator (NEMO) (FIP-3) (Ikb kinase-associated protein 1) (IKKAP1) (Inhibitor of nuclear factor kappa-B kinase subunit gamma) (I-kappa-B kinase subunit gamma) (IKK-gamma) (IKKG) (Ikb kinase subunit gamma) (NF-kappa-B essential modifier) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Regulatory subunit of the IKK core complex which phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor (PubMed:14695475, PubMed:20724660, PubMed:21518757, PubMed:9751060). Its binding to scaffolding polyubiquitin plays a key role in IKK activation by multiple signaling receptor pathways (PubMed:16547522, PubMed:18287044, PubMed:19033441, PubMed:19185524, PubMed:21606507, PubMed:27777308, PubMed:33567255). Can recognize and bind both 'Lys-63'-linked and linear polyubiquitin upon cell stimulation, with a much higher affinity for linear polyubiquitin (PubMed:16547522, PubMed:18287044, PubMed:19033441, PubMed:19185524, PubMed:21606507, PubMed:27777308). Could be implicated in NF-kappa-B-mediated protection from cytokine toxicity. Essential for viral activation of IRF3 (PubMed:19854139). Involved in TLR3- and IFIH1-mediated antiviral innate response; this function requires 'Lys-27'-linked polyubiquitination (PubMed:20724660).; (Microbial infection) Also considered to be a mediator for HTLV-1 Tax oncoprotein activation of NF-kappa-B.

**Subcellular Localization:** Cytoplasm . Nucleus . Note=Sumoylated NEMO accumulates in the nucleus in response to genotoxic stress.

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer- composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.