

Recombinant Mouse BIR1B Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51948

Size: 10ug, 100ug

Protein Name: Baculoviral IAP repeat-containing protein 1b (Neuronal apoptosis inhibitory protein 2)

Synonym: Naip2, Birc1b, Naip-rs6

UniProt ID: Q9QUK4

UniProt Link: www.uniprot.org/uniprotkb/Q9QUK4/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1447 AA

Molecular Weight: 164 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAQGEAVEEIIICEFDDDLVSELSTLLRVDALSVLKRQQEEDHKTRMKMKKGFNSQMRSEAKRLKT
FETYDKFRSWTPQEMAAAGFYHTGVKLGVCFCSSILFSTRLRKLPIENHKKLRPECEFLLGKDVG
NIGKYDIRVKSPKMLRGDKARYHEEEARLESFEDWPFYAHGTSPRVLSAAGFVFTGKRDTVQCFS
CGGCLGNWEEGDDPWKEHAKWFPKCEFLQSKKSPEEITQYVQSYEGFLHVTGEHFVNSWVRREL
PMVSAYCNDVSFANEELRMDTFKDWPHESPGAVEALVKAGLFYTGKRDIVQCFSCGGCMEKWAEG
DNPIEDHTKFFPNCVFLQTLKSSAEVIPALQSHCALPEAMETTSESNHDDAAAVHSTVVDVSPSEAG
ELEPASSLVSVLCRDQDHSEAQGRGCASSGYLPSTDLGQSEAQWLQEARSLSEQLRDTYTKATF
RHMNLPEVYSSLGTDHLLSCDVSIIISKHISQPVQGS LTIPVFSNLNSVMCVEGEAGSGKTTFLKRIAF
LWASGCCPLLYRFQLVLYLSLSSITPGQELAKIICAQLLGAGGCISEVCLSSIIQQLQHQLVFLDDYS
LASLPQALHTLITKNYLSRTCLLIHVHTNKVRGIRPYLDTSLEIKEFPFYNTVSVLRKLFSDIMRVKFI
NYFGFHEELQGIHKTPLFVAAVCTDWFKNPSPDQPFQDVALFKAYMQYLSLKHKGAAKPLQATVSSC
GQLALTGLFSSCFEFNSDNLAEAGVDEDEELTTCLMSKFTAQRLRPVYRFLGPLFQEFLLAAVRLTELL
SSDRQEDQDLGLYYLRQINSPLKAMSIYHTFLKYVSSHPSKAAPTVSHLLQLVDEKESLENMSEN
EDYMKLHPEALLWIECLRGLWQLSPESFSLFISENLLRICLNFAHESNTVAACSPVILQFLRGRTLDLK
VLSLQYFWDHPETLLLLLSIKISLNGNWNVQRIDFSLEIKSFQVQPPPTIDQDYAIAFQPIQEVQKNLSE
KKHIIKKYEDMKHQIPLNISTGYWKLSPKPYKIPKLEVQVTNTGPADQALLQVLMEVFSASQSIEFRLS
DSSGFLESIRPALELSKASVTKCSMSRLELSREDQKLLLTLPTLQSLVSETNQLPDQLFHNLHKFLG
LKELCVRLDSKPDVLSVLPGEFPNLHHEKLSIRTSTESDLSKLVKLIQNSPNLHVHFLKCNFLSNCE



PLMTVLASCKKLREIEFSGRCFEAMTFVNILPNFVFLKILNLRDQQFPDKETSEKFAQALGSLRNLEKL
FVPTGDGIHQVAKLIVRQCLQLPCLRVLVFAETLDDSVLEIAKGATRGGFQKLENLDLTLNHKITEEG
YRNFFQVLDNLPNLKNLDIRHIPECIQIQAITVKALGQCVSRLPSLTRLGMLSWLLDEEDIKVINDVKE
RHPQSKRLTVHWRWVVPFSPVIQK

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 Baculoviral IAP repeat-containing protein 1b (Neuronal apoptosis inhibitory protein 2) 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: Sensor component of the NLRC4 inflammasome that specifically recognizes and binds type III secretion system (T3SS) rod proteins such as *S.typhimurium* (Salmonella) PrgJ and *B.thailandensis* BsaK from pathogenic bacteria. Association of pathogenic bacteria proteins drives in turn drive assembly and activation of the NLRC4 inflammasome, promoting caspase-1 activation, cytokine production and macrophage pyroptosis. The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria. The NLRC4 inflammasome senses Gram-negative bacteria such as *L.pneumophila* and *P.aeruginosa*, enteric pathogens *S.typhimurium* (Salmonella) and *S.flexneri*. Prevents motor-neuron apoptosis induced by a variety of signals.

Subcellular Localization: N/A

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.