

Recombinant Rat B2CL1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52395

Size: 10ug, 100ug

Protein Name: Bcl-2-like protein 1 (Bcl2-L-1) (Apoptosis regulator Bcl-X)

Synonym: Bcl2l1, Bclx, Bcl2l

UniProt ID: P53563

UniProt Link: www.uniprot.org/uniprotkb/P53563/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 233 AA

Molecular Weight: 26 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSQSNRELVVDFLSYKLSQKGYWSQFSDVEENRTEAPEETEPERETPSAINGNPSWHLADSPAV
NGATGHSSSLDAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFR
DGVNWGRIVAFFSFGGALCVESVDKEMQVLVSRIASWMATYLNDHLEPWIQENGWDTFVDLYGN
NAAAESRKGQERFNRWFLTGMTVAGVVLLGSLFSRK

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 Bcl-2-like protein 1 (Bcl2-L-1) (Apoptosis regulator Bcl-X) 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: Potent inhibitor of cell death. Inhibits activation of caspases. Appears to regulate cell death by blocking the voltage-dependent anion channel (VDAC) by binding to it and preventing the release of the caspase activator, CYC1, from the mitochondrial membrane. Also acts as a regulator of G2 checkpoint and progression to cytokinesis during mitosis.; Isoform Bcl-X(L) also regulates presynaptic plasticity, including neurotransmitter release and recovery, number of axonal mitochondria as well as size and number of synaptic vesicle clusters. During synaptic stimulation, increases ATP availability from mitochondria through regulation of mitochondrial membrane ATP synthase F(1)F(0) activity and regulates endocytic vesicle retrieval in hippocampal neurons through association with DMN1L and stimulation of its GTPase activity in synaptic vesicles. May attenuate inflammation impairing NLRP1-inflammasome activation, hence CASP1 activation and IL1B release (By similarity).; Isoform Bcl-X(S) promotes apoptosis.

Subcellular Localization: [Isoform Bcl-X(L)]: Mitochondrion inner membrane. Mitochondrion outer membrane. Mitochondrion matrix. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Cytoplasm, cytosol. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Nucleus membrane ; Single-pass membrane protein ; Cytoplasmic side . Note=Localizes to the centrosome when phosphorylated at Ser-49 (By similarity). After neuronal stimulation, translocates from cytosol to synaptic vesicle and mitochondrion membrane in a calmodulin-dependent manner.

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.