Recombinant B2CL1 protein (His tag)

Catalog Number	547217
Synonyms	Bcl2-L-1; Apoptosis regulator Bcl-X
Species	Human
Expression System	E. coli
Accession	Q07817
Molecular Weight	Predictes a molecular mass of 14.88 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	82-197
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 82-197 aa (Q07817) 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 Bcl-2-like protein 1 (Bcl2-L-1) Fragment (82-197) is a high-quality, stable protein fragment derived from human BCL2L1, designed for structural and biochemical studies. This 116-amino acid fragment retains key solubility and stability properties, making it an ideal tool for investigating apoptosis regulation and mitochondrial function in cellular pathways. Bcl-2-like protein 1, encoded by the BCL2L1 gene in Homo sapiens, is a critical apoptosis regulator that potently inhibits cell death by blocking caspase activation. It functions by binding to the voltage-dependent anion channel (VDAC) on mitochondrial membranes, preventing the release of caspase activators like CYC1. Isoform Bcl-X(L) additionally regulates presynaptic plasticity, mitochondrial ATP synthesis, and endocytic vesicle retrieval in neurons, while attenuating inflammation by impairing NLRP1-inflammasome activation. In contrast, isoform Bcl-X(S) promotes apoptosis. The full-length protein localizes to multiple subcellular compartments, including mitochondrial inner/outer membranes, synaptic vesicle membranes, cytosol, and the nucleus, with translocation to synaptic vesicles and mitochondria occurring in a calmodulin-dependent manner upon neuronal stimulation. This recombinant fragment provides a focused approach to study these essential biological mechanisms.