Recombinant DBLOH protein (His tag)

Catalog Number	541334
Synonyms	Diablo homolog, mitochondrial; Direct IAP-binding protein with low pI; Second mitochondria-derived activator of caspases; SMAC
Species	Human
Expression System	E. coli
Accession	Q9NR28
Molecular Weight	Predictes a molecular mass of 21.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	69-239
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 69-239 aa (Q9NR28) 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 Diablo IAP-binding mitochondrial protein (DIABLO) fragment (residues 69-239) is a high-purity, stable protein designed for structural and biochemical studies. This fragment, derived from the human SMAC protein, retains key functional properties and is optimized for solubility, making it ideal for investigating apoptosis mechanisms and inhibitor of apoptosis protein (IAP) interactions. The full-length Diablo IAP-binding mitochondrial protein, also known as SMAC, is a critical regulator of apoptosis in humans. It promotes cell death by activating caspases via the cytochrome c/Apaf-1/caspase-9 pathway and functions by counteracting inhibitor of apoptosis proteins (IAPs), such as BIRC6/BRUCE, to facilitate caspase activity. Isoforms of DIABLO further modulate apoptosis by influencing the stability and degradation of XIAP/BIRC4, enhancing caspase-3 activation. Located primarily in the mitochondria, DIABLO is released into the cytosol during apoptosis in a PARL-dependent manner, where it exerts its pro-apoptotic effects. This protein is essential for understanding cellular death pathways and has implications in cancer and other diseases involving dysregulated apoptosis.