



# Recombinant Protein Technical Manual

**Recombinant Human BCL2L1/Bcl-XL Protein (His Tag)(Active)**  
RPES3057

## Product Data:

**Product SKU:** RPES3057

**Size:** 50µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_612815.1

## Protein Information:

**Molecular Mass:** 25.2 kDa

**AP Molecular Mass:** 32 kDa

**Tag:** C-His

**Bio-activity:** Measured by its binding ability in a functional ELISA.1. Immobilized human BID at 10 µg/mL (100 µl/well) can bind biotinylated human BCL2L1, The EC50 of biotinylated human BCL2L1 is 7.1 ng/mL.2. Immobilized mouse BID at 10 µg/mL (100 µl/well) can bind biotinylated human BCL2L1, The EC50 of biotinylated human BCL2L1 is 7.01 ng/mL.

**Purity:** > 85 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** Bcl-2-Like Protein 1; Bcl2-L; Apoptosis Regulator Bcl-X; Bcl-X;bcl-xL;BCL-XL/S;bcl-xS;BCL2L;BCLX;BCLXL;BCLXS;PPP1R52

## Immunogen Information:

**Sequence:** Met 1-Arg 212

## Background:

B-cell lymphoma-extra large (Bcl-xl) is a transmembrane molecule in the mitochondria. Bcl-xL (BCL2L1), belongs to the Bcl-2 family. Members of the bcl-2 family encode proteins that function either to promote or to inhibit apoptosis. Antiapoptotic members such as Bcl-2 and Bcl-xL prevent PCD in response to a wide variety of stimuli to take part in cancer survival. Conversely, proapoptotic proteins, exemplified by Bax and Bak, can accelerate death and in some instances are sufficient to cause apoptosis independent of additional signals. The crystal and solution structures of a Bcl-2 family member, Bcl-xL is like this: The structures consist of two central, primarily hydrophobic  $\alpha$ -helices, which are surrounded by amphipathic helices. A 60-residue loop connecting helices  $\alpha$ 1 and  $\alpha$ 2 was found to be flexible and non-essential for anti-apoptotic activity. Bcl-xL is characterized as important factors in autophagy, inhibiting Beclin 1-mediated autophagy by binding to Beclin 1. In addition, Beclin 1, Bcl-2 and Bcl-xL can cooperate with Atg5 or Ca<sup>2+</sup> to regulate both autophagy and apoptosis. Bcl-xL is also implicated in anoxia induced cell death. The pathway is initiated by the loss of function of the prosurvival Bcl-2 family members Mcl and Bcl-2 / Bcl-XL, resulting in Bax- or Bak-dependent release of cytochrome c and subsequent caspase-9-dependent cell death. Thus, Bcl-xL, the well-characterized apoptosis guards, appears to be important in cell death.