

Human BCL2L1 / Bcl-XL Protein (His Tag)

Catalog Number: 10455-H08E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Bcl-X; bcl-xL; BCL-XL/S; bcl-xS; BCL2L1; BCLX; BCLXL; BCLXS; PPP1R52

Protein Construction:

A DNA sequence encoding the human BCL2L1 (NP_612815.1) (Met1-Arg212) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA.
2. 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.
3. 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.

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met 1

Molecular Mass:

The recombinant human BCL2L1 consists of 222 amino acids and has a calculated molecular mass of 25.2 kDa. It migrates as an approximately 30.5 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 5mM Tris, 1% Glycerol, pH 8.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

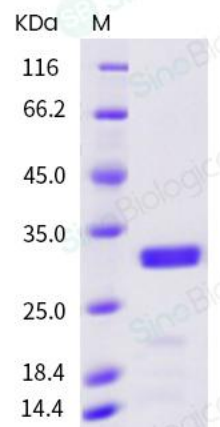
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 α -helices, which are surrounded by amphipathic helices. A 6-residue loop connecting helices α 1 and α 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 Ca²⁺ 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-1 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.

References

1. Vander Heiden MG, et al. (1997) Bcl-xL Regulates the Membrane Potential and Volume Homeostasis of Mitochondria. Cell. 91 (5): 627-37.
2. Muchmore SW, et al. (1996) X-ray and NMR structure of human Bcl-xL, an inhibitor of programmed cell death. Nature. 381: 335-341.
3. Sharoff EH, et al. (2007) Bcl-2 family members regulate anoxia-induced cell death. Antioxid Redox Signal. 9 (9): 1405-9.