

# **Bcl-10 Antibody**

Catalog # ASC10077

#### Specification

## **Bcl-10 Antibody - Product Information**

Application **Primary Accession** Other Accession Reactivity Host Clonality Isotype Calculated MW **Application Notes** 

WB, ICC, IF 095999 AF134395, 5070371 Human, Mouse, Rat Rabbit Polyclonal laG 31 kDa KDa Bcl-10 antibody can be used for detection of BCL10 by Western blot at 0.5 µg/mL. dilution. An approximately 31 kDa band can be detected. Antibody can also be used for immunocytochemistry starting at 1 µg/mL. For immunofluorescence start at 10  $\mu g/mL.$ 

#### **Bcl-10 Antibody - Additional Information**

Gene ID 8915 **Other Names** Bcl-10 Antibody: CLAP, mE10, CIPER, c-E10, CARMEN, CLAP, CARD-containing molecule enhancing NF-kappa-B, Bcl-10, B-cell CLL/lymphoma 10

**Target/Specificity** BCL10:

**Reconstitution & Storage** 

Bcl-10 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** 

Bcl-10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Bcl-10 Antibody - Protein Information**

Name BCL10 {ECO:0000303|PubMed:9989495, ECO:0000312|HGNC:HGNC:989}

**Function** 

Plays a key role in both adaptive and innate immune signaling by bridging CARD domain-containing proteins to immune activation (PubMed:<a href="http://www.uniprot.org/citations/10187770" target="\_blank">10187770</a>, PubMed:<a href="http://www.uniprot.org/citations/10364242" target="\_blank">10364242</a>, PubMed:<a



href="http://www.uniprot.org/citations/10400625" target="\_blank">10400625</a>, PubMed:<a href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/25365219" target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/25365219" target="\_blank">25365219</a>). Acts by channeling adaptive and innate immune signaling downstream of CARD domain-containing proteins CARD9, CARD11 and CARD14 to activate NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:<a

href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</a>). Recruited by activated CARD domain-containing proteins: homooligomerized CARD domain-containing proteins form a nucleating helical template that recruits BCL10 via CARD-CARD interaction, thereby promoting polymerization of BCL10, subsequent recruitment of MALT1 and formation of a CBM complex (PubMed:<a href="http://www.uniprot.org/citations/24074955"">http://www.uniprot.org/citations/24074955</a>

target="\_blank">24074955</a>). This leads to activation of NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:<a

href="http://www.uniprot.org/citations/18287044" target="\_blank">18287044</a>, PubMed:<a
href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</a>, PubMed:<a
href="http://www.uniprot.org/citations/27777308" target="\_blank">27777308</a>). Activated by
CARD9 downstream of C-type lectin receptors; CARD9-mediated signals are essential for
antifungal immunity (PubMed:<a href="http://www.uniprot.org/citations/26488816"
target="\_blank">26488816</a>). Activated by CARD11 downstream of T-cell receptor (TCR) and
B-cell receptor (BCR) (PubMed:<a href="http://www.uniprot.org/citations/18264101"
target="\_blank">18287044</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">18287044</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">18287044</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">26488816</a>). Activated by CARD11 downstream of T-cell receptor (TCR) and
B-cell receptor (BCR) (PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">18287044</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044"
target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/24074955"
target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/27777308"
target="\_blank">24074955</a>, PubMed:<a href="http://www.uniprot.org/citations/10187815"
target="\_bla

#### **Cellular Location**

Cytoplasm, perinuclear region. Membrane raft. Note=Appears to have a perinuclear, compact and filamentous pattern of expression. Also found in the nucleus of several types of tumor cells. Colocalized with DPP4 in membrane rafts.

Tissue Location Ubiquitous..

#### **Bcl-10 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

**Bcl-10 Antibody - Images** 





Western blot analysis of Bcl-10 in Raji whole cell lysate in the absence (A) or presence (B) of peptide (2161P) with Bcl-10 antibody at 1:500 dilution.



Immunocytochemistry of Bcl10 in Raji cells with Bcl10 antibody at 1 µg/mL.



Immunofluorescence of BcI-10 in Raji cells with BcI-10 antibody at 10  $\mu$ g/mL.

## **Bcl-10 Antibody - Background**

Bcl-10 Antibody: Apoptosis is related to many diseases including cancer. Cell death signals are transduced by death domain (DD) and caspase recruitment domain (CARD) containing molecules and a caspase family of proteases. CARD containing cell death regulators include ARC, RAIDD, Apaf-1, caspase-9, and caspase-2. A novel CARD containing protein was recently identified by several groups and designated Bcl10, CIPER, mE10, CARMEN, CLAP. Bcl10 is a cellular homolog of the equine herpesvirus-2 E-10 gene. Overexpression of Bcl10 induces JNK, p38, and NF-κB activation. Bcl10 interacts with caspase-9 and enhances pro-caspase-9 processing and induces



apoptosis through caspase-9 activation. Bcl10 exhibits a variety of mutations in MALT lymphomas and in B and T cell lineage lymphomas indicating that it may be commonly involved in the pathogenesis of human malignancy. Bcl10 is expressed in many human and murine tissues and cell lines.

#### **Bcl-10 Antibody - References**

Willis TG, Jadayel DM, Du MQ, et al. Bcl10 is involved in t(1;14)(p22;q32) of MALT B cell lymphoma and mutated in multiple tumor types. Cell 1999;96(1):35-45 Koseki T, Inohara N, Chen S, et al. CIPER, a novel NF κB-activating protein containing a caspase recruitment domain with homology to Herpesvirus-2 protein E10. J Biol Chem 1999;274(15):9955-61 Yan M, Lee J, Schilbach S, Goddard A, Dixit V. mE10, a novel caspase recruitment domain-containing proapoptotic molecule. J Biol Chem 1999;274(15):10287-92 Thome M, Martinon F, Hofmann K, et al. Equine herpesvirus-2 E10 gene product, but not its cellular homologue, activates NF-κB transcription factor and c-Jun N-terminal kinase. J Biol Chem 1999;274(15):9962-8