

**BCL-10 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1003a****Specification**

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**BCL-10 Antibody - Product Information**

Application	WB, IHC, IF, FC
Primary Accession	<a href="#">O95999</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	26kDa KDa

**Description**

Bcl-10 (B-cell CLL/lymphoma 10), also known as CLAP, Me10, CIPER, c-E10, CARMEN. Entrez Protein NP\_003912. It is a protein containing a caspase recruitment domain (CARD). It plays an important role in apoptosis and activating NF-kappaB. The research suggested that it interacted with other CARD domain containing proteins including CARD9, 10, 11 and 14, which were thought to function as upstream regulators in NF-kappaB signaling. Bcl-10 is found to form a complex with MALT1 which encoded by another gene known to be translocated in MALT lymphoma. MALT1 and Bcl-10 are thought to synergize in the activation of NF-kappaB, and the deregulation of either of them may contribute to the same pathogenetic process that leads to the malignancy.

**Immunogen**

Purified recombinant fragment of human BCL-10 expressed in E. Coli.

**Formulation**

Purified antibody in PBS containing 0.03% sodium azide.

**BCL-10 Antibody - Additional Information**

**Gene ID** 8915

**Other Names**

B-cell lymphoma/leukemia 10, B-cell CLL/lymphoma 10, Bcl-10, CARD-containing molecule enhancing NF-kappa-B, CARD-like apoptotic protein, hCLAP, CED-3/ICH-1 prodomain homologous E10-like regulator, CIPER, Cellular homolog of vCARMEN, cCARMEN, Cellular-E10, c-E10, Mammalian CARD-containing adapter molecule E10, mE10, BCL10, CIPER, CLAP

**Dilution**

WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000  
IF~~1/200 - 1/1000  
FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

## 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/25365219" target="\_blank">25365219</a>, PubMed:<a href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</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" 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/27777308" target="\_blank">27777308</a>, PubMed:<a href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</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">18264101</a>, PubMed:<a href="http://www.uniprot.org/citations/18287044" target="\_blank">18287044</a>, PubMed:<a href="http://www.uniprot.org/citations/27777308" target="\_blank">27777308</a>, PubMed:<a href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</a>). Promotes apoptosis, pro-caspase-9 maturation and activation of NF-kappa-B via NIK and IKK (PubMed:<a href="http://www.uniprot.org/citations/10187815" target="\_blank">10187815</a>).

### 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 Cytometry](#)
- [Cell Culture](#)

## BCL-10 Antibody - Images

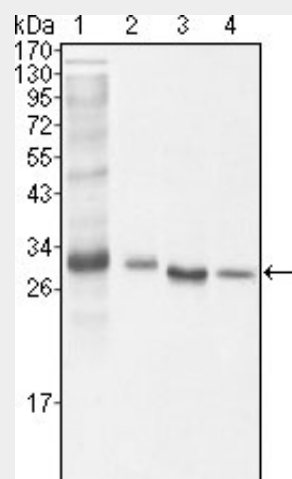


Figure 1: Western blot analysis using BCL10 mouse mAb against NIH/3T3 (1), HeLa (2), MCF-7 (3) and Jurkat (4) cell lysate.

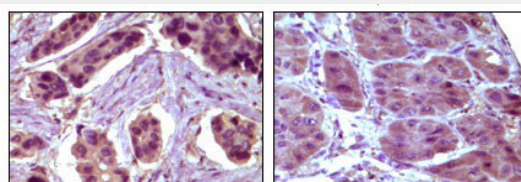


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma (A) and liver carcinoma (B), showing cytoplasmic localization using BCL10 mouse mAb with DAB staining.

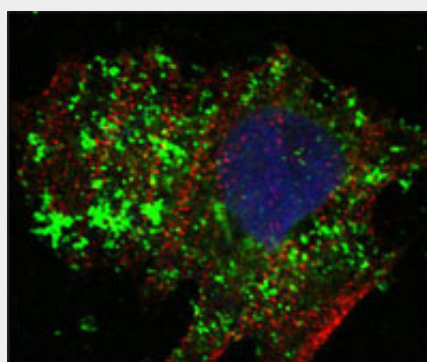


Figure 3: Confocal immunofluorescence analysis of HeLa cells using BCL10 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

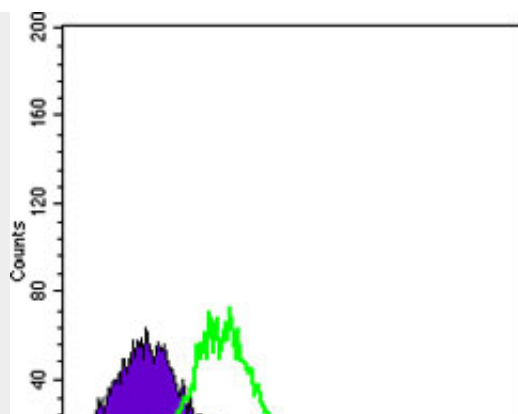


Figure 4: Flow cytometric analysis of HeLa cells using BCL10 mouse mAb (green) and negative control (purple).

#### **BCL-10 Antibody - References**

1. Willis, T.G., et al. (1999) Cell. 96, 35-45.
2. Lucas, P.C., et al. (2001) J. Biol.Chem. 276, 19012-19019.
3. Wang, L., et al. (2001) J. Biol.Chem. 276, 21405-21409