10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Bcl-10 Antibody

Catalog # ASC10077

## Product Information

| | |
|---|---|
| **Application** | WB, IF, ICC, E |
| **Primary Accession** | O95999 |
| **Other Accession** | AF134395, 5070371 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 26252 |
| **Conjugate** | Unconjugated |
| **Application Notes** | Bcl-10 antibody can be used for detection of BCL10 by Western blot at 0.5 g/mL. dilution. An approximately 31 kDa band can be detected. Antibody can also be used for immunocytochemistry starting at 1 g/mL. For immunofluorescence start at 10 g/mL. |

## 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℃ for three months and -20℃, 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. |

## 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:10187770, PubMed:10364242, PubMed:10400625, PubMed:24074955, PubMed:25365219). 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:24074955). 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:24074955). 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:18287044, PubMed:24074955, PubMed:27777308). Activated by CARD9 downstream of C-type lectin receptors; CARD9-mediated signals are essential for antifungal immunity (PubMed:26488816). Activated by CARD11 downstream of T-cell receptor (TCR) and B-cell receptor (BCR) (PubMed:18264101, PubMed:18287044, PubMed:24074955, PubMed:27777308). Promotes apoptosis, pro-caspase-9 maturation and activation of NF-kappa-B via NIK and IKK (PubMed:10187815). |
| **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.. |

## Background

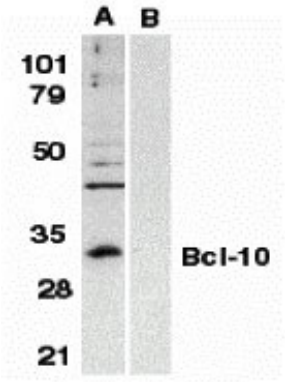
Bcl-10 Antibody: Apoptosis is related to many diseases including cancer. Cell death signals are transduced by death domain (DD) and caspase recruitment domain (CARD) containing molecules and a caspase family of proteases. CARD containing cell death regulators include ARC, RAIDD, Apaf-1, caspase-9, and 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.

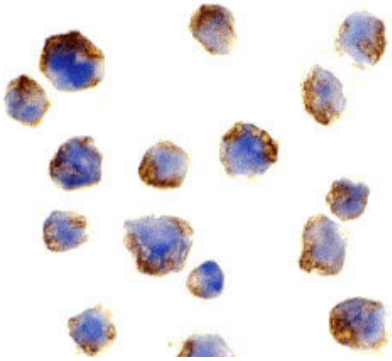
## References

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

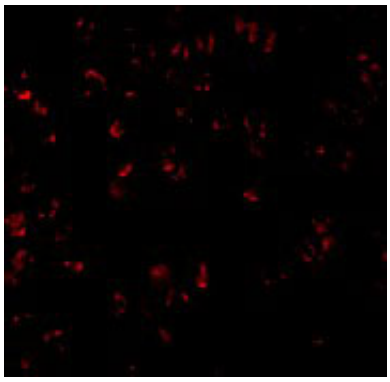
## Images

Western blot analysis of Bcl-10 in Raji whole cell lysate in the absence (A) or presence (B) of peptide (APS10077P) with Bcl-10 antibody at 1:500 dilution.



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



Immunofluorescence of Bcl-10 in Raji cells with Bcl-10 antibody at 10 µg/mL.