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BCL-10 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1003a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	O95999
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	4F8
Isotype	IgG1
Calculated MW	26252
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.

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 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
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.

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..

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

Images

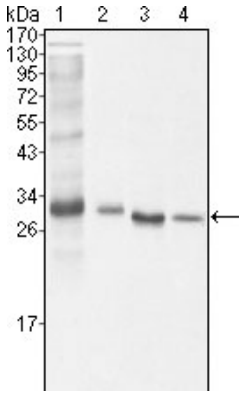


Figure 1: Western blot analysis using BCL10 mouse mAb against NIH/3T3 (1), Hela (2), MCF-7 (3) and Jurkat (4) cell lysate.

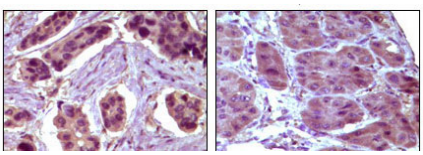


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma (A) and liver carcinoma (B), showing cytoplasmic localization using BCL10 mouse mAb with DAB staining.

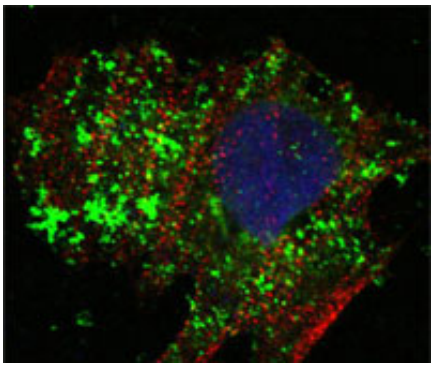


Figure 3: Confocal immunofluorescence analysis of Hela cells using BCL10 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

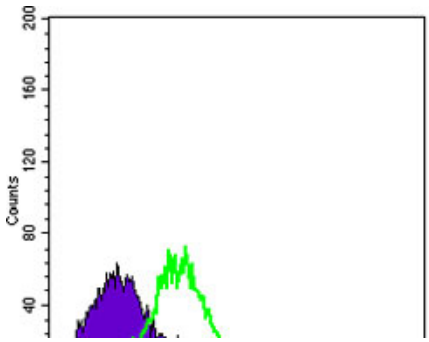


Figure 4: Flow cytometric analysis of Hela cells using BCL10 mouse mAb (green) and negative control (purple).

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