Revision 3

Store at -20C

#4237

Bcl10 (C78F1) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	28	Rabbit IgG	#O95999	8915

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Bcl10 (C78F1) Rabbit mAb detects endogenous levels of total Bcl10 protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser60 of Bcl10.

Background

Bcl10/CIPER/CLAP/mE10 is a widely expressed CARD (caspase recruitment domain) containing protein shown to induce apoptosis and activate NF-κB (1-5). The CARD domain mediates self-oligomerization, interactions with other CARD proteins and is necessary for NF-κB activation, although the precise mechanism which Bcl10 regulates these processes is not fully understood. The discovery of Bcl10 came from observations of the chromosomal translocation t(1;14)(p22;q32) from B cell lymphomas of the mucosa-associated lymphoid tissue (MALT) (1,5). This translocation results in deregulated expression of a truncated form of Bcl10 which lacks apoptotic activity and enhances transformation. Studies from Bcl10 deficient mice demonstrate that Bcl10 is essential for the activation of NF-κB by T- and B-cell receptors (6). One third of Bcl10 deficient mice developed lethal exencephaly. Surviving mice were unaffected by various apoptotic stimuli, but were severely immunodeficient and defective in antigen receptor-induced NF-κB activiation. PKC or T-cell receptor signaling results in a downregulation of Bcl10 protein levels, attenuating both NF-κB activation and cellular proliferation and also provides a negative feedback regulation of the NF-κB signaling to T cell signaling (7).

Background References

1. Willis, T.G. et al. (1999) *Cell* 96, 35-45.
2. Koseki, T. et al. (1999) *J Biol Chem* 274, 9955-61.
3. Srinivasula, S.M. et al. (1999) *J Biol Chem* 274, 17946-54.
4. Yan, M. et al. (1999) *J Biol Chem* 274, 10287-92.
5. Zhang, Q. et al. (1999) *Nat Genet* 22, 63-8.
6. Ruland, J. et al. (2001) *Cell* 104, 33-42.
7. Scharschmidt, E. et al. (2004) *Mol Cell Biol* 24, 3860-73.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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