

Calumenin (4C6) Mouse mAb

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, IF-IC	H M R Mk	Endogenous	47	Mouse IgG1	#O43852	813

Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
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

Calumenin (4C6) Mouse mAb recognizes endogenous levels of total calumenin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant protein specific to the carboxy terminus of human calumenin protein.

Background

Calumenin belongs to the CREC family of proteins that also contains reticulocalbin, ERC-55/TCBP-49/E6BP, Cab45, and crocalbin/CBP-50. These EF-hand proteins localize to the endoplasmic reticulum (ER) and are involved in the secretory pathway in mammalian cells (1). Calumenin exists as two isoforms corresponding to alternatively spliced variants of the CALU gene (2). Calumenin has been shown to localize to the ER via a carboxy terminal HDEF ER retention signal (3), and undergoes secretion after trafficking through the secretory pathway (4). Secreted calumenin plays a role in amyloidosis by interacting with serum amyloid P component (5). Calumenin is also a chaperone for mutants of the cystic fibrosis transmembrane conductance regulator (CFTR) (6). Researchers performing a proteomics analysis of endometrial cancer identified calumenin as a potential target for endometrial carcinoma (7).

Background References

1. Honoré, B. and Vorum, H. (2000) *FEBS Lett* 466, 11-8.
2. Jung, D.H. et al. (2006) *Biochem Biophys Res Commun* 343, 34-42.
3. Yabe, D. et al. (1997) *J Biol Chem* 272, 18232-9.
4. Vorum, H. et al. (1999) *Exp Cell Res* 248, 473-81.
5. Vorum, H. et al. (2000) *FEBS Lett* 465, 129-34.
6. Teng, L. et al. (2012) *PLoS One* 7, e40173.
7. Voisin, S.N. et al. (2011) *PLoS One* 6, e16352.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

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

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