

## Calpain 2 monoclonal antibody

Catalog: MB66907

Host: Mouse

Reactivity: Human

### BackGround:

Calpain is a calcium-dependent thiol proteinase that is functionally active as a heterodimer composed of a small regulatory subunit and one of at least two large catalytic subunits. In vitro, calpain 1 requires micromolar levels of calcium, while calpain 2 requires millimolar levels of calcium for activation. The regulation of calpain in vivo is the subject of many current studies, which suggest that proteolytic activity is regulated post-transcriptionally by mechanisms such as calcium requirements, subcellular localization of the heterodimer, phosphorylation via the EGFR-Erk signaling cascade, endogenous inhibitors, and autoproteolytic cleavage. Calpastatin negatively regulates autoproteolytic cleavage of calpain 1 between Gly27 and Leu28. Calpain influences cell migration by modifying rather than degrading its substrates responsible for cell adhesion and cytoskeletal arrangement. Control of calpain activity has caught the attention of drug development since limiting its activity could mute invasiveness of tumors or chronic inflammation.

### Product:

Mouse IgG2b. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 80 kDa

### Swiss-Prot:

P17655

### Purification&Purity:

This antibody is purified through a protein G column.

### Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), FC (1/10 - 1/50)

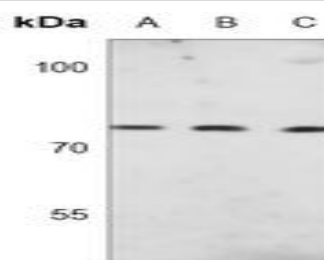
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

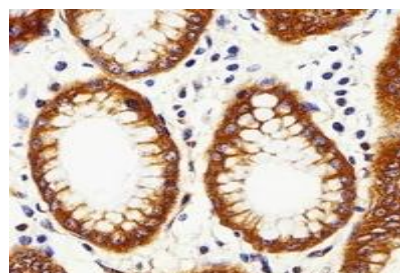
### Specificity:

Recognizes endogenous levels of Calpain 2 protein.

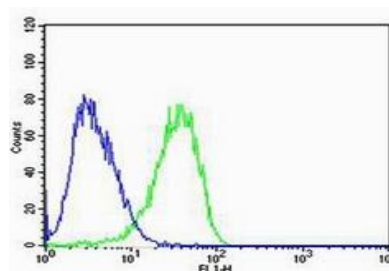
### DATA:



Western blot analysis of Calpain 2 expression in A549 (A), A431 (B), SKBR3 (C) whole cell lysates.



Immunohistochemical analysis of Calpain 2 staining in human stomach formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



### Note:

For research use only, not for use in diagnostic procedure.

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## PRODUCT DATA SHEET

Bioworld Technology, Inc.

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