



## PRODUCT DATA SHEET

**Product:** Anti-Calpain, p30 subunit, Clone 28F3

**Cat. No:** MC-480 (100 µg)

**Background:**

The calpains are calcium-dependent cysteine proteases that are widely expressed in mammalian systems. Both m-calpain (calpain II) and u-calpain (calpain I) are composed of an 80 kDa subunit. Whereas the 30 kDa subunit is shared by both enzymes, the larger catalytic subunits are different and exhibit the distinct Ca<sup>++</sup> requirements that are suggested by their names. Whereas m-calpain requires milli-molar levels of calcium, u-calpain is active at micromolar concentrations of Ca<sup>++</sup>. In addition to the ubiquitously expressed m- and u-calpains, some tissue-specific calpains have been identified. The calpains appear to serve multiple physiological roles, and ideas concerning the functions of these enzymes are in a state of rapid flux.

**Secificity:**

Clone 28F3 specifically recognizes the 28-30 kDa subunit of m-calpain and µ-calpain.

**Species Reactivity:**

Reacts with human and bovine calpain, but does not recognize rat or mouse calpain.

**Ig Isotype:** IgG1

**Hybridoma:**

Balb/C mice were immunized with calpain purified from human placenta. The resultant hybridomas were selected for reactivity with the immunogen by ELISA and with the antigen by Western blot.

**Format:**

Monoclonal antibody against human Calpain I, II (small subunit). This antibody is available at a concentration of 100 µg/100 µl in 0.02 M sodium phosphate, pH 7.5, 0.15 M sodium chloride, 50% glycerol, 3 mM sodium azide. This antibody was purified to >95% homogeneity by standard chromatographic techniques.

**Storage and Stability:**

Stable for 24 months when stored at -20°C. Aliquot to avoid freeze/thaw cycles.

**Applications and Suggested Dilutions:**

- ELISA: Use at 0.5-1 µg/ml.
- Immunoprecipitation: Use at 1-2 µg/ml.
- Western blot: 0.5-1 µg/ml

The optimal dilution for a specific application should be determined by the researcher.

**Limitations:**

For *in vitro* research use only. Not for use in diagnostics or in humans.

**Warranty:**

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.