



CAPN1 Polyclonal Antibody

Catalog No	E91172	Lot Number	P00009
Applications	WB IHC	Quantity	100ul, 100ug/100ul
Cross-Reactivity	H M R	Calculated MW	82kDa

Immunogen Information

Immunogen	Recombinant protein of human CAPN1
Gene ID	823
Swiss Prot	P07384
Synonyms	CAPN1;CANP;CANP1;CANPL1;muCANP;muCL ;

Product information

Species	Rabbit
Isotype	IgG
Purity	Affinity purification
Storage	Store at -20°C or -80°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Background

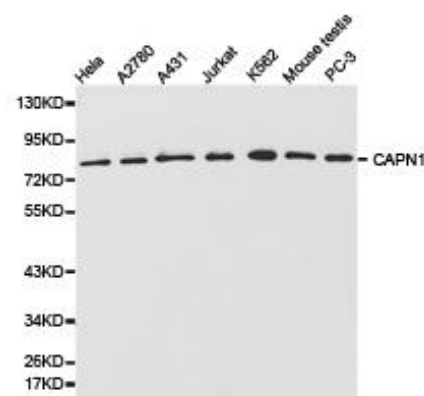
Calpain is a calcium-dependent thiol proteinase that is functionally active as a heterodimer composed of a small regulatory subunit and one of at least two large catalytic subunits (calpain 1 or calpain 2). In vitro, calpain 1 (mu-calpain) requires micromolar levels of calcium, while calpain 2 (M-calpain) 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 (calpastatin) and autoproteolytic cleavage (1). Calpastatin negatively regulates autoproteolytic cleavage of calpain 1 between Gly27 and Leu28 (2). 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 (1).

References

1. Perrin, B.J. and Huttenlocher, A. (2002) Int. J. Biochem. Cell Biol. 34, 722-725.
2. Melloni, E. et al. (1996) Biochem. Biophys. Res. Commun. 229, 193-197.

Recommended Dilutions

WB	1:500 - 1:2000
IHC	1:50- 1:200



Western blot analysis of extracts of various cell lines, using CAPN1 antibody.