

Product datasheet for **TA326969**

Calpain 1 (CAPN1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human CAPN1
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calpain 1
Database Link:	NP_005177 Entrez Gene 12333 Mouse Entrez Gene 29153 Rat Entrez Gene 823 Human P07384



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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. 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.
Synonyms:	CANP; CANP1; CANPL1; muCANP; muCL
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Alzheimer's disease, Apoptosis