

## Product datasheet for **CF504280**

### Calpain 2 (CAPN2) Mouse Monoclonal Antibody [Clone ID: OTI3G1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3G1
Applications:	IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150
Reactivity:	Human, Dog, Mouse, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CAPN2(NP_001739) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	79.8 kDa
Gene Name:	calpain 2
Database Link:	<a href="#">NP_001739</a> <a href="#">Entrez Gene 12334 Mouse</a> <a href="#">Entrez Gene 29154 Rat</a> <a href="#">Entrez Gene 480118 Dog</a> <a href="#">Entrez Gene 824 Human</a> <a href="#">P17655</a>


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**Background:**

The calpains, calcium-activated neutral proteases, are nonlysosomal, intracellular cysteine proteases. The mammalian calpains include ubiquitous, stomach-specific, and muscle-specific proteins. The ubiquitous enzymes consist of heterodimers with distinct large, catalytic subunits associated with a common small, regulatory subunit. This gene encodes the large subunit of the ubiquitous enzyme, calpain 2. Multiple heterogeneous transcriptional start sites in the 5' UTR have been reported. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

**Synonyms:**

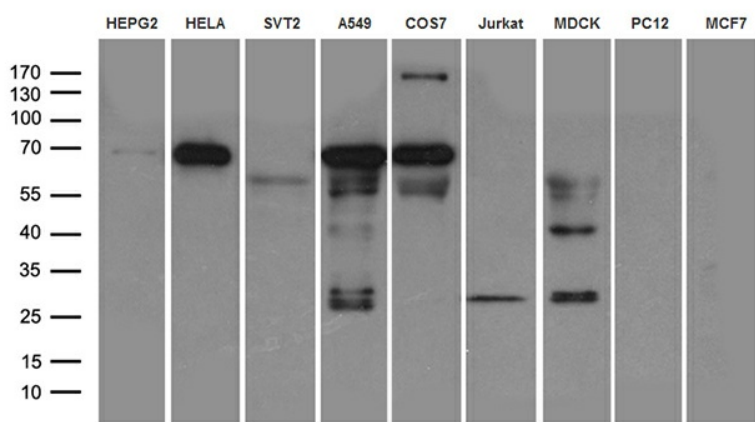
CANP2; CANPL2; CANPml; mCANP

**Protein Families:**

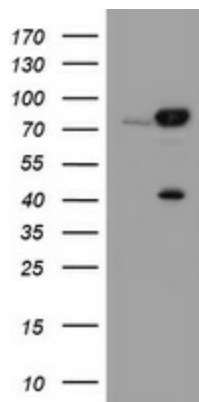
Druggable Genome, Protease

**Protein Pathways:**

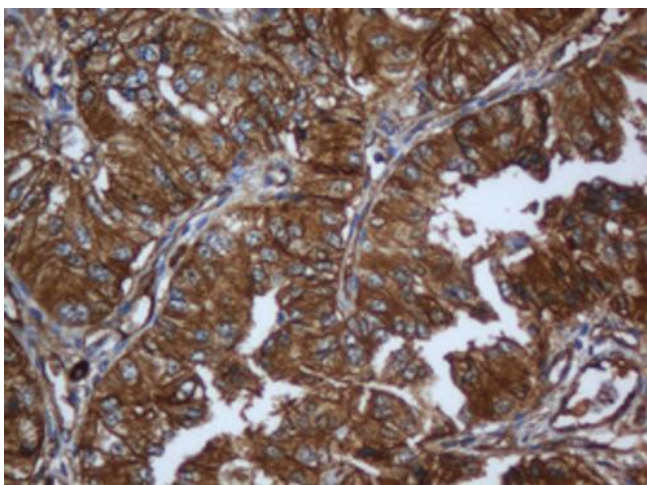
Alzheimer's disease, Apoptosis, Focal adhesion

**Product images:**


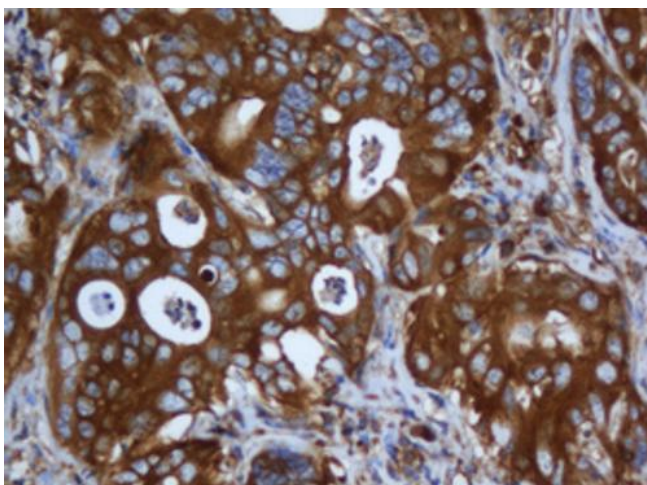
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-CAPN2 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human) (1:500).



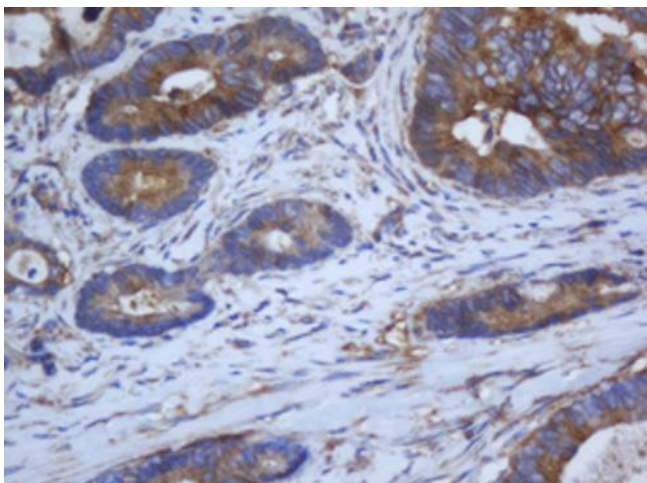
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CAPN2 (Cat# [RC205642], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CAPN2 (Cat# [TA504280]). Positive lysates [LY400662] (100ug) and [LC400662] (20ug) can be purchased separately from OriGene.



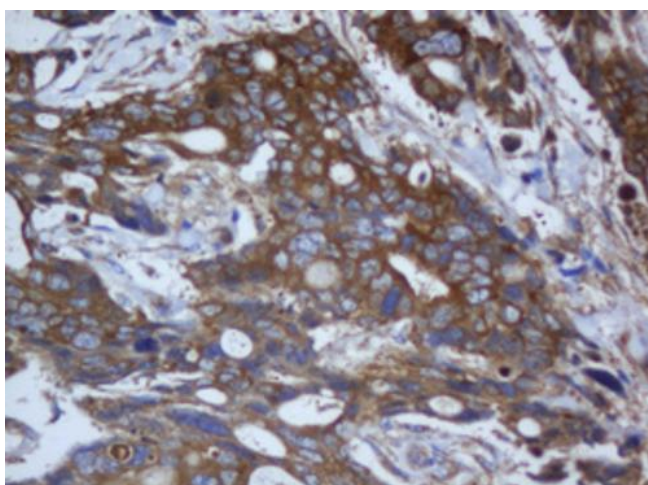
Immunohistochemical staining of paraffin-embedded Carcinoma of Human pancreas tissue using anti-CAPN2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



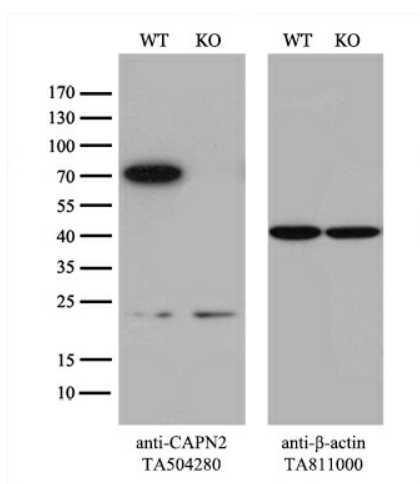
Immunohistochemical staining of paraffin-embedded Carcinoma of Human liver tissue using anti-CAPN2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-CAPN2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-CAPN2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and CAPN2-Knockout 293T cells (KO, Cat# [LC841490]) were separated by SDS-PAGE and immunoblotted with anti-CAPN2 monoclonal antibody [TA504280], (1:500). Then the blotted membrane was stripped and reprobed with anti-β-actin antibody ([TA811000]) as a loading control.