

## CAPN2 Monoclonal antibody

Catalog Number: 66977-1-Ig 2 Publications

## Basic Information

|   |   |  |
|---|---|--|
| <b>Catalog Number:</b><br>66977-1-Ig        | <b>GenBank Accession Number:</b><br>BC021303                                | <b>Purification Method:</b><br>Protein G purification                                      |
| <b>Size:</b><br>1900 µg/ml                  | <b>GeneID (NCBI):</b><br>824  | <b>CloneNo.:</b><br>1E1F10   |
| <b>Source:</b><br>Mouse                     | <b>UNIPROT ID:</b><br>P17655  | <b>Recommended Dilutions:</b><br>WB 1:5000-1:50000<br>IHC 1:2000-1:8000<br>IF 1:400-1:1600 |
| <b>Isotype:</b><br>IgG1                     | <b>Full Name:</b><br>calpain 2, (m/II) large subunit                        |  |
| <b>Immunogen Catalog Number:</b><br>AG28427 | <b>Calculated MW:</b><br>700 aa, 80 kDa<br><b>Observed MW:</b><br>72-80 kDa |  |

## Applications

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| <b>Tested Applications:</b><br>IF/ICC, IHC, WB, ELISA  | <b>Positive Controls:</b>  |
| <b>Cited Applications:</b><br>WB, IF   | <b>WB:</b> A549 cells, HeLa cells, HSC-T6 cells, NIH/3T3 cells, human placenta tissue, U2OS cells, LNCaP cells, HEK-293 cells, rat brain tissue, mouse brain tissue, HepG2 cells |
| <b>Species Specificity:</b><br>Human, Mouse, Rat   | <b>IHC:</b> human pancreas cancer tissue, human stomach cancer tissue, human colon cancer tissue, rat colon tissue   |
| <b>Cited Species:</b><br>human, mouse  | <b>IF:</b> HepG2 cells,  |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |  |

## Background Information

Calpain 2 (Calpain-2 catalytic subunit) is also named as CANPL2, CANPml, mCANP, FLJ39928, and belongs to the peptidase C2 family. N-terminal sequencing of CAPN2 purified from the human liver indicates that the N-terminal methionine is removed, resulting in a mature 699-amino acid subunit with a calculated molecular mass of 79.9 kD (PMID:2852952). It is a calcium-regulated non-lysosomal thiol-protease that catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. It has 2 isoforms produced by alternative splicing with the molecular weight of 80 kDa and 71 kDa.

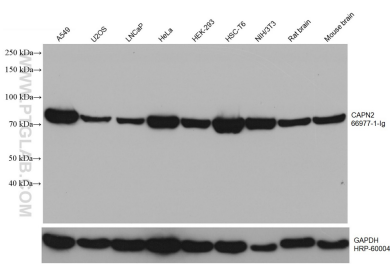
## Notable Publications

| Author                 | Pubmed ID | Journal              | Application |
|------------------------|-----------|----------------------|-------------|
| Jonasz Jeremiasz Weber | 35482253  | Cell Mol Life Sci    | IF          |
| Fengming Shen          | 35498131  | Oxid Med Cell Longev | WB          |

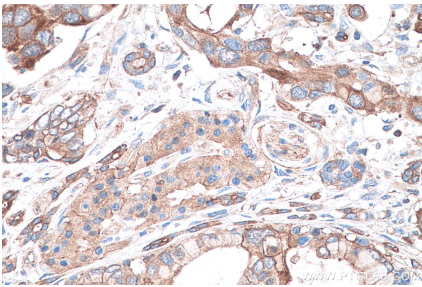
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
 Aliquoting is unnecessary for -20°C storage

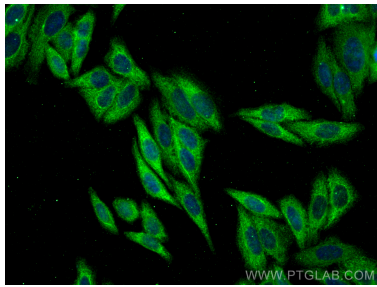
Selected Validation Data



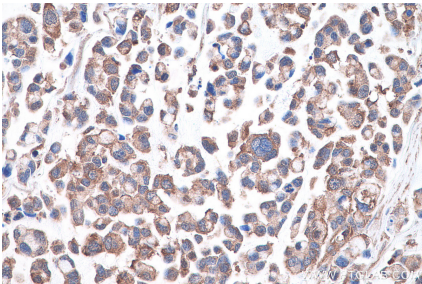
A549 cells were subjected to SDS PAGE followed by western blot with 66977-1-Ig (CAPN2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



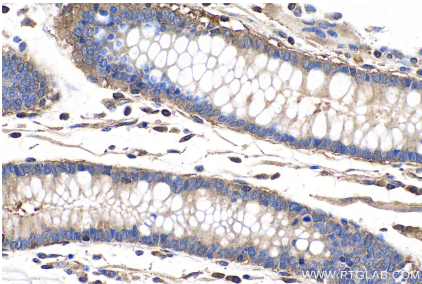
Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 66977-1-Ig (CAPN2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



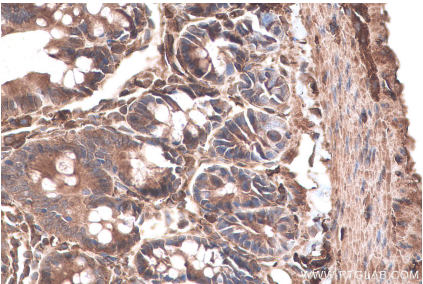
Immunofluorescent analysis of (-20°C Methanol) fixed HepG2 cells using CAPN2 antibody (66977-1-Ig, Clone: 1E1F10) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



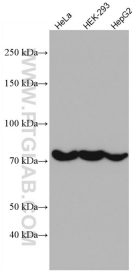
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66977-1-Ig (CAPN2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 66977-1-Ig (CAPN2 antibody) at dilution of 1:8000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat small intestine tissue slide using 66977-1-Ig (CAPN2 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 66977-1-Ig (CAPN2 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.