

**Cleaved-Cathepsin G (I21) Polyclonal Antibody**  
**Catalog # AP63119****Specification****Cleaved-Cathepsin G (I21) Polyclonal Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB                     |
| Primary Accession | <a href="#">P08311</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |

**Cleaved-Cathepsin G (I21) Polyclonal Antibody - Additional Information****Gene ID** 1511**Other Names**

CTSG; Cathepsin G; CG

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**Cleaved-Cathepsin G (I21) Polyclonal Antibody - Protein Information****Name** CTSG**Function**

Serine protease with trypsin- and chymotrypsin-like specificity (PubMed:<a href="http://www.uniprot.org/citations/29652924" target="\_blank">29652924</a>, PubMed:<a href="http://www.uniprot.org/citations/8194606" target="\_blank">8194606</a>). Also displays antibacterial activity against Gram-negative and Gram-positive bacteria independent of its protease activity (PubMed:<a href="http://www.uniprot.org/citations/2116408" target="\_blank">2116408</a>, PubMed:<a href="http://www.uniprot.org/citations/2117044" target="\_blank">2117044</a>). Prefers Phe and Tyr residues in the P1 position of substrates but also cleaves efficiently after Trp and Leu (PubMed:<a href="http://www.uniprot.org/citations/29652924" target="\_blank">29652924</a>). Shows a preference for negatively charged amino acids in the P2' position and for aliphatic amino acids both upstream and downstream of the cleavage site (PubMed:<a href="http://www.uniprot.org/citations/29652924" target="\_blank">29652924</a>). Required for recruitment and activation of platelets which is mediated by the F2RL3/PAR4 platelet receptor (PubMed:<a href="http://www.uniprot.org/citations/10702240" target="\_blank">10702240</a>, PubMed:<a href="http://www.uniprot.org/citations/3390156" target="\_blank">3390156</a>). Binds reversibly to and stimulates B cells and CD4(+) and CD8(+) T cells (PubMed:<a

href="http://www.uniprot.org/citations/7842483" target="\_blank">7842483</a>, PubMed:<a href="http://www.uniprot.org/citations/9000539" target="\_blank">9000539</a>). Also binds reversibly to natural killer (NK) cells and enhances NK cell cytotoxicity through its protease activity (PubMed:<a href="http://www.uniprot.org/citations/9000539" target="\_blank">9000539</a>, PubMed:<a href="http://www.uniprot.org/citations/9536127" target="\_blank">9536127</a>). Cleaves complement C3 (PubMed:<a href="http://www.uniprot.org/citations/1861080" target="\_blank">1861080</a>). Cleaves vimentin (By similarity). Cleaves thrombin receptor F2R/PAR1 and acts as either an agonist or an inhibitor, depending on the F2R cleavage site (PubMed:<a href="http://www.uniprot.org/citations/10702240" target="\_blank">10702240</a>, PubMed:<a href="http://www.uniprot.org/citations/7744748" target="\_blank">7744748</a>). Cleavage of F2R at '41-Arg-|- Ser-42' results in receptor activation while cleavage at '55-Phe-|-Trp-56' results in inhibition of receptor activation (PubMed:<a href="http://www.uniprot.org/citations/7744748" target="\_blank">7744748</a>). Cleaves the synovial mucin-type protein PRG4/lubricin (PubMed:<a href="http://www.uniprot.org/citations/32144329" target="\_blank">32144329</a>). Cleaves and activates IL36G which promotes expression of chemokines CXCL1 and CXCL8 in keratinocytes (PubMed:<a href="http://www.uniprot.org/citations/30804664" target="\_blank">30804664</a>). Cleaves IL33 into mature forms which have greater activity than the unprocessed form (PubMed:<a href="http://www.uniprot.org/citations/22307629" target="\_blank">22307629</a>). Cleaves coagulation factor F8 to produce a partially activated form (PubMed:<a href="http://www.uniprot.org/citations/18217133" target="\_blank">18217133</a>). Also cleaves and activates coagulation factor F10 (PubMed:<a href="http://www.uniprot.org/citations/8920993" target="\_blank">8920993</a>). Cleaves leukocyte cell surface protein SPN/CD43 to release its extracellular domain and trigger its intramembrane proteolysis by gamma-secretase, releasing the CD43 cytoplasmic tail chain (CD43-ct) which translocates to the nucleus (PubMed:<a href="http://www.uniprot.org/citations/18586676" target="\_blank">18586676</a>). Cleaves CCL5/RANTES to produce RANTES(4-68) lacking the N-terminal three amino acids which exhibits reduced chemotactic and antiviral activities (PubMed:<a href="http://www.uniprot.org/citations/16963625" target="\_blank">16963625</a>). During apoptosis, cleaves SMARCA2/BRM to produce a 160 kDa cleavage product which localizes to the cytosol (PubMed:<a href="http://www.uniprot.org/citations/11259672" target="\_blank">11259672</a>). Cleaves myelin basic protein MBP in B cell lysosomes at '224-Phe-|-Lys-225' and '248-Phe-|-Ser-249', degrading the major immunogenic MBP epitope and preventing the activation of MBP-specific autoreactive T cells (PubMed:<a href="http://www.uniprot.org/citations/15100291" target="\_blank">15100291</a>). Cleaves annexin ANXA1 and antimicrobial peptide CAMP to produce peptides which act on neutrophil N-formyl peptide receptors to enhance the release of CXCL2 (PubMed:<a href="http://www.uniprot.org/citations/22879591" target="\_blank">22879591</a>). Acts as a ligand for the N-formyl peptide receptor FPR1, enhancing phagocyte chemotaxis (PubMed:<a href="http://www.uniprot.org/citations/15210802" target="\_blank">15210802</a>). Has antibacterial activity against the Gram-negative bacteria *N.gonorrhoeae* and *P.aeruginosa* (PubMed:<a href="http://www.uniprot.org/citations/1937776" target="\_blank">1937776</a>, PubMed:<a href="http://www.uniprot.org/citations/2116408" target="\_blank">2116408</a>). Likely to act against *N.gonorrhoeae* by interacting with *N.gonorrhoeae* penA/PBP2 (PubMed:<a href="http://www.uniprot.org/citations/2126324" target="\_blank">2126324</a>). Exhibits potent antimicrobial activity against the Gram-positive bacterium *L.monocytogenes* (PubMed:<a href="http://www.uniprot.org/citations/2117044" target="\_blank">2117044</a>). Has antibacterial activity against the Gram-positive bacterium *S.aureus* and degrades *S.aureus* biofilms, allowing polymorphonuclear leukocytes to penetrate the biofilm and phagocytose bacteria (PubMed:<a href="http://www.uniprot.org/citations/2117044" target="\_blank">2117044</a>, PubMed:<a href="http://www.uniprot.org/citations/32995850" target="\_blank">32995850</a>). Has antibacterial activity against *M.tuberculosis* (PubMed:<a href="http://www.uniprot.org/citations/15385470" target="\_blank">15385470</a>). Mediates CASP4 activation induced by the Td92 surface protein of the periodontal pathogen *T.denticola*, causing production and secretion of IL1A and leading to pyroptosis of gingival fibroblasts (PubMed:<a href="http://www.uniprot.org/citations/29077095" target="\_blank">29077095</a>). Induces platelet aggregation which is strongly potentiated in the presence of ELANE (PubMed:<a

href="http://www.uniprot.org/citations/25211214" target="\_blank">25211214</a>, PubMed:<a href="http://www.uniprot.org/citations/9111081" target="\_blank">9111081</a>).

#### Cellular Location

Cell membrane; Peripheral membrane protein. Cytoplasmic granule. Secreted. Cytoplasm, cytosol. Lysosome. Nucleus. Note=Secreted by activated neutrophils (PubMed:3390156). Detected in synovial fluid (PubMed:32144329) Localizes to lysosomes in B cells where it is not endogenously synthesized but is internalized from the cell membrane (PubMed:15100291). Localizes to the nucleus during apoptosis (PubMed:11259672).

#### Tissue Location

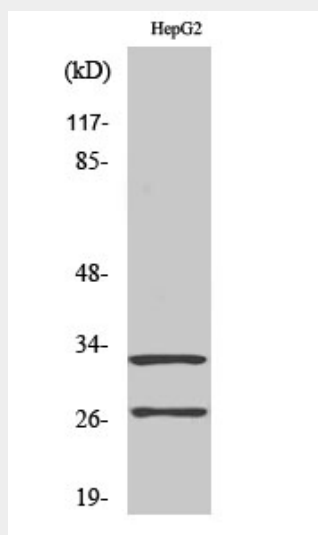
Expressed in neutrophils (at protein level) (PubMed:3799965). Expressed in B cells (PubMed:15100291)

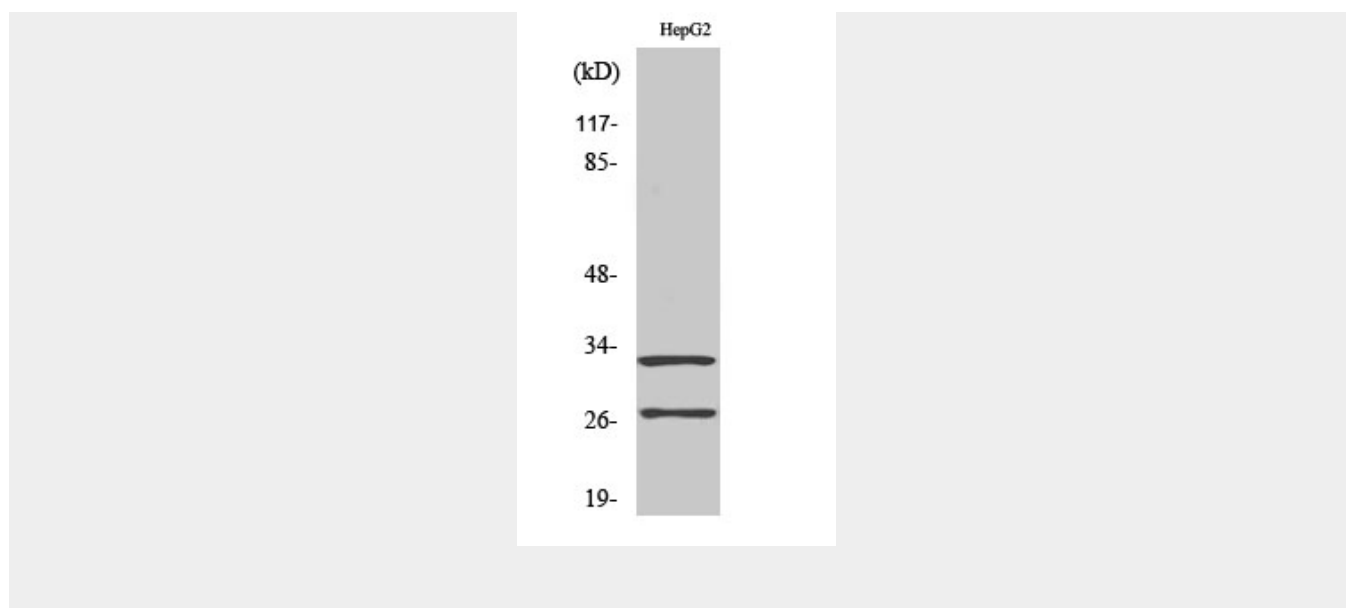
### Cleaved-Cathepsin G (I21) Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Cleaved-Cathepsin G (I21) Polyclonal Antibody - Images





#### **Cleaved-Cathepsin G (I21) Polyclonal Antibody - Background**

Serine protease with trypsin- and chymotrypsin-like specificity. Cleaves complement C3. Has antibacterial activity against the Gram-negative bacterium *P.aeruginosa*, antibacterial activity is inhibited by LPS from *P.aeruginosa*, Z-Gly-Leu-Phe-CH<sub>2</sub>Cl and phenylmethylsulfonyl fluoride.