

## Anti-Cathepsin L Antibody (7U669)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	7U669
Purification:	Protein A

### Applications

Verified Activity:	1. Anti-CTSL1 rabbit monoclonal antibody at 1:500 dilution. -Lane A: HepG2 Whole Cell Lysate. -Lane B: A549 Whole Cell Lysate. -Lane C: HCT116 Whole Cell Lysate. -Lane D: U87MG Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:36 kDa. -Observed band size:25 kDa.
	2. Anti-CTSL1 rabbit monoclonal antibody at 1:500 dilution. -Lane A: A549 Whole Cell Lysate. -Lane B: CTSL1 konckout A549 Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. -Developed using the ECL technique. -Performed under reducing conditions. -Predicted band size:36 kDa. -Observed band size:25 kDa
Application:	WB
Recommended	WB: 1:500-1:2000

### Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein: Human Cathepsin L / CTSL / CTSL1 protein (TMPY-00734)

Antigen Species: Human

Synonyms: MEP;1190035F06Rik;Ctsl1;cathepsin L;fs;nkt

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### Research Background

Cathepsin L is a lysosomal cysteine protease that plays a major role in intracellular protein catabolism, and is potent in degrading collagen, laminin, elastin, as well as alpha-1 protease inhibitor and other structural proteins of basement membranes. It is secreted by liver flukes at all stages of their development in the mammalian host, are believed to play important roles in facilitating parasite migration (tissue degradation), feeding and immune-evasion. Like many proteases, Cathepsin L is synthesized as an inactive preproenzyme, and cleavage of the 96-residue proregion is necessary to generate the fully active 221-residue mature enzyme. Studies have demonstrated that cleavage of the proregion occur autocatalytically under acidic conditions. The enzyme takes part in nutrient acquisition by catabolizing host proteins to absorbable peptides, facilitates the migration of the parasite through the host intestine and liver by cleaving interstitial matrix proteins such as fibronectin, laminin and native collagen and is implicated in the inactivation of host immune defenses by cleaving immunoglobulins. Recently, Cathepsin L has been shown to suppress Th1 immune response in infected laboratory animals making them susceptible to concurrent bacterial infections. Cathepsin L is synthesized in large amounts and secreted by many malignantly transformed cells, and induced by growth factors and tumor promoters. In addition to its role in protein degradation, evidence has accumulated for the participation of Cathepsin L in various physiological and pathological processes, such as tumor invasion and metastasis, bone resorption, spermatogenesis, and arthritis. Accordingly, Cathepsin L may prove useful as a diagnostic or prognostic marker of human tumor malignancy.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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