

## Product datasheet for **AR50775PU-N**

### Cathepsin S (17-331, His-tag) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Cathepsin S (17-331, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MQLHKDPTLD HHWHLWKKTY GKQYKEKNEE AVRRLIWEKN LKFVMLHNLE HSMGMHSYDL GMNHLGDMTS EEVMSLMSSL RVPSQWQRNI TYKSNPNWIL PDSVDWREKG CVTEVKYQGS CGACWAFSAV GALEAQLKLG TGKLVLSLAQ NLVDCSTEKY GNKGCNGGFM TTAFAQYIIDN KGIDSDASYP YKAMDQKCQY DSKYRAATCS KYTELPGRE DVLKEAVANK GPVSVGVDAR HPSFFLYRSG VYYEPSCTQN VNHGVLVVG Y GDLNGKEYWL VKNSWGHNFG EEGYIRMARN KGNHCGIASF PSYPEI
Tag:	His-tag
Predicted MW:	38.1 kDa
Concentration:	lot specific
Purity:	>85% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol
Preparation:	Liquid purified protein
Protein Description:	Recombinant human CTSS protein, fused to His-tag at N-terminus, was expressed in E.coli.
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	<a href="#">NP_001186668</a>
Locus ID:	1520
UniProt ID:	<a href="#">P25774</a>
Cytogenetics:	1q21.3



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**Summary:**

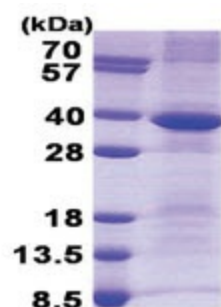
The preproprotein encoded by this gene, a member of the peptidase C1 family, is a lysosomal cysteine proteinase that participates in the degradation of antigenic proteins to peptides for presentation on MHC class II molecules. The mature protein cleaves the invariant chain of MHC class II molecules in endolysosomal compartments and enables the formation of antigen-MHC class II complexes and the proper display of extracellular antigenic peptides by MHC-II. The mature protein also functions as an elastase over a broad pH range. When secreted from cells, this protein can remodel components of the extracellular matrix such as elastin, collagen, and fibronectin. This gene is implicated in the pathology of many inflammatory and autoimmune diseases and, given its elastase activity, plays a significant role in some pulmonary diseases. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2020]

**Protein Families:**

Druggable Genome, Protease

**Protein Pathways:**

Antigen processing and presentation, Lysosome

**Product images:**

15% SDS-PAGE (3ug)