

Recombinant Rat CATB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52227

Size: 10ug, 100ug

Protein Name: Cathepsin B (EC 3.4.22.1) (Cathepsin B1) (RSG-2) [Cleaved into: Cathepsin B light chain; Cathepsin B heavy chain]

Synonym: Ctsb

UniProt ID: P00787

UniProt Link: www.uniprot.org/uniprotkb/P00787/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 339 AA

Molecular Weight: 37 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MWWSLIPLSCLLAL TSAHDKPSSHPLSDDMINYINKQNTTWQAGRNFYNVDISYLKKLCGTVLG GPN
LPERVGFSE DINLPESFDAREQWSNCPTIAQIRDQGSCGSCWAFGAVEAMSDRICIHTNGRVNVEVS
AEDLLTCCGIQCGDGCNGGYPSGAWNFWTRKGLVSGGVYN SHIGCLPYTIPPCEHHVNGSRPPCT
GEGDTPKCNKMCEAGYSTSYKEDKHYGYTSYSVSDSEKEIMAEIYKNGPVEGAFTVFSDFLTYKSG
VYKHEAGDVMGGHAIRILGWGIENGVPYWL VANSWNVDWGDNGFFKILRGENHCGIESEIVAGIPRT
QQYWGRF

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Cathepsin B (EC 3.4.22.1) (Cathepsin B1) (RSG-2) [Cleaved into: Cathepsin B light chain; Cathepsin B heavy chain] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Thiol protease which is believed to participate in intracellular degradation and turnover of proteins (PubMed:1639824). Cleaves matrix extracellular phosphoglycoprotein MEPE (By similarity). Involved in the solubilization of cross-linked TG/thyroglobulin in the thyroid follicle lumen (By similarity). Has also been implicated in tumor invasion and metastasis (By similarity).

Subcellular Localization: Lysosome . Melanosome . Secreted, extracellular space . Apical cell membrane ; Peripheral membrane protein ; Extracellular side . Note=Localizes to the lumen of thyroid follicles and to the apical membrane of thyroid epithelial cells.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.