

## 32-6710: CTSD Mouse

**Application :** Functional Assay  
**Alternative Name :** Ctsd, CatD, CD, Cathepsin D.

### Description

Source: Sf9, Baculovirus cells.

Sterile Filtered colorless solution.

Cathepsin D is synthesized as a 54kDa precursor, which is proteolytically processed to an intermediate 48kDa single chain, which matures into more stable 34kDa and 14kDa two chain form. It is an estrogen-regulated lysosomal protease that has been suggested to facilitate cancer cell migration and invasion by digesting the basement membrane, extracellular matrix, and connective tissue. Because of its mitogenic and proteolytic activities, it has been implicated as a prognostic marker in many tumor types. Cathepsin D is expressed in epithelial cells as well as in macrophages.

CTSD produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 398 amino acids (21-410 a.a.) and having a molecular mass of 44.0kDa (Molecular size on SDS-PAGE will appear at approximately 40-57kDa). CTSD is expressed with an 8 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 1 µg / 5 µg  
**Purification :** Greater than 90.0% as determined by SDS-PAGE.  
**Content :** CTSD protein solution (0.25mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.  
**Amino Acid :** IIRIPLRKFT SIRRTMTEVG GSVEDLILKG PITKYSMQSS PKTTEPVSEL LKNYLDAQYY GDIGIGTPPQ CFTVVFDTS SNLWVPSIHC KILDIACWVH HKYNSDKSST YVKNGTSFDI HYGSGSLSGY LSQDTVSVPC KSDQSKARGI KVEKQIFGEA TKQPGIVFVA AKFDGILGMG YPHISVNNVL PVFDNLMQKQK LVDKNIFSFY LNRDPEGQPG GELMLGGTDS KYHGEISYL NVTRKAYWQV HMDQLEVGNE LTLCKGGCEA IVDTGTSLLV GPVEEVKELQ KAIGAVPLIQ GEYMIPCEKV SSLPTVYLKL GGKNYELHPD KYILKVSQGG KTICLSGFMG MDIPPPSGPL WILGDVFIGS YYTVFDRDNN RVGFANAVVL LEHHHHHH.

### Application Note

Specific activity is > 1,000 pmol/min/ug in which one unit will convert 1.0 pmole of Mca-PLGL-Dpa-AR-NH<sub>2</sub> to MCA- Pro-Leu-OH per minute at pH 3.5 at 25C.