

# Cathepsin K, Active, human recombinant

<b>CATALOG #:</b>	7600-5	5 µg
	7600-50	50 µg
<b>ALTERNATE NAMES:</b>	CTSK, CTSO, CTSO3	
<b>SOURCE:</b>	E.Coli	
<b>PURITY:</b>	≥90% by SDS-PAGE analysis	
<b>MOL. WEIGHT:</b>	23.5 kDa (115-329 aa)	
<b>FORMULATION:</b>	0.5 mg/ml solution in 25 mM Na <sub>2</sub> HPO <sub>4</sub> and 500 mM NaCl (pH 7.0) with 50% glycerol.	

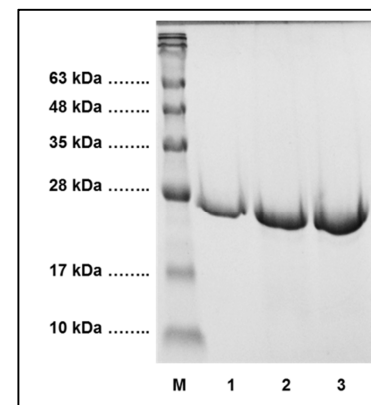
**SPECIFIC ACTIVITY:** The specific activity is >5000 mU/mg (1U = 1 µmole/min/mg) as measured by Cathepsin K Activity Assay Kit (Catalog #K141-100)

**STORAGE CONDITIONS:** Stable for 6 months at -80°C. Use as provided or dilute to 0.1 mg/ml with 50% glycerol. Aliquot and store at -80°C. Avoid repeated freezing and thawing cycles, as this may lead to the loss in its activity over time.

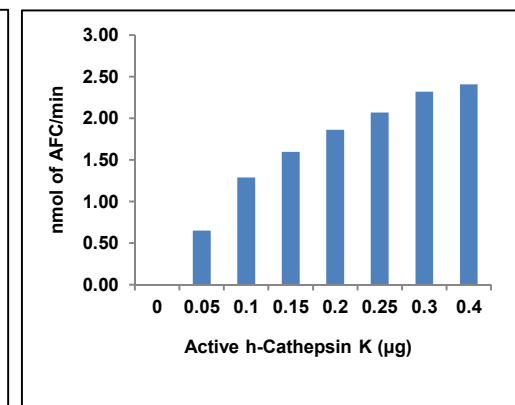
**ACTIVITY ASSAY:** Biovision's Active Cathepsin K has been activated through auto-catalytic activation of Procathepsin K (Cat # 1026) at low pH. The enzyme is fully active as seen from its ability to cleave Cathepsin K-specific fluorescent substrate using the Cathepsin K Activity assay kit (Cat # K141-100).

**DESCRIPTION:** Cathepsin K, a member of the papain cysteine proteinase family is the predominant proteinase responsible for the resorption of the bone matrix. Cathepsin cleaves proteins such as collagen type I, collagen type II and osteonectin, thereby playing a role in bone remodeling and resorption in osteoporosis, osteolytic bone metastasis and rheumatoid arthritis (Bromme and Okamoto, 1995; Drake, F. et al 1996; Bossard et al, 1996).

**INHIBITORS:** Leupeptin (IC<sub>50</sub>: 70 nM), E-64 (IC<sub>50</sub>: 5 nM), z-FF-FMK (35 nM)<sup>a</sup> and Cystine. Minimal effect shown by Pepstatin and PMSF (inhibitors of aspartyl and serine proteases respectively). No inhibition seen with EDTA or phenanthroline (classical inhibitors of metalloproteases).



SDS-PAGE (15%) of h-Cathepsin K:  
M: Protein Marker  
1: Human Cathepsin K (5 µg)  
2: Human Cathepsin K (10 µg)  
3: Human Cathepsin K (15 µg)



Measurement of h-Cathepsin K activity by Cathepsin K Activity Assay Kit (K141-100).

## RELATED PRODUCTS:

- Cathepsin K inhibitor screening kit (Cat. No. K150-100)
- Procathepsin K, mouse recombinant (Cat. No. 1027-10, 50, -1000)
- Procathepsin K, human recombinant (Cat. No. 1026-10, 50, -1000)
- Procathepsin K, rat recombinant (Cat. No. 1029-10, 50, -1000)
- Cathepsin K activity assay kit (Cat. No. K141-100)
- Cathepsin K Antibody (Cat. No. 3368-100, 3588-100)
- Cathepsin K Antibody (Cat. No. 3368BP-50, 3588BP-50)
- Cathepsin K Antibody (Cat # 3368-100)
- Cathepsin K Blocking Peptide (Cat # 3368BP-50)
- Cathepsin K Antibody (Cat # 3588-100)
- Cathepsin K Blocking Peptide (Cat # 3588BP-50)
- Cathepsin B (active, human) (Cat # 1021-5)
- Cathepsin D (active, human) (Cat # 1022-5)
- Cathepsin G, Human Neutrophil (Cat # 4713-100)
- Cathepsin H (active, human) (Cat # 1023-5)
- Cathepsin L, human recombinant (Cat # 1135-5)
- Human CellExp™ Cathepsin S, human recombinant (Cat # 7277-10, -50, -1000)

**FOR RESEARCH USE ONLY! Not to be used in humans.**