

Cathepsin K (CTSK) Recombinant Protein | CTSK recombinant protein

Recombinant Human Cathepsin K (CTSK)

CATALOG # AAA18463	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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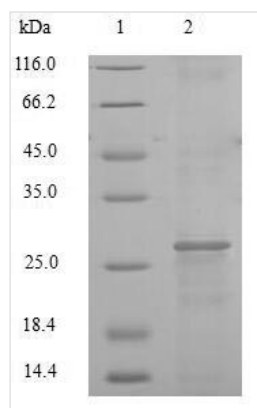
PRODUCT SYNONYMS

Cathepsin K (CTSK); Recombinant Human Cathepsin K (CTSK); Cathepsin O; Cathepsin O2; Cathepsin X; CTSK recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	115-329aa; Full Length of Mature Protein
Sequence	APDSVDYRKK GYVTPVKNQG QCGSCWAFSS VGALEGQLKK KTGKLLNLSP QNLVDCVSEN DGC GG GYMTN AFQYVQKNRG IDSEDAYPYV GQEESCMYNP TGKAAKCRGY REIPEGNEKA LKRAVARVGP VSVAIDASLT SFQFYSGVY YDESCNSDNL NHAFLAVGYG IQGKNKHVII KNSWGENWGN KGYILMAR NK NNACGIANLA SFPKM
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for CTSK recombinant protein	Closely involved in osteoclastic bone resorption and may participate partially in the disorder of bone remodeling. Displays potent endoprotease activity against fibrinogen at acid pH. May play an important role in extracellular matrix degradation.
Product Categories/Family for CTSK recombinant protein	Signal Transduction

References

Molecular cloning of human cathepsin O, a novel endoproteinase and homologue of rabbit OC2.Shi G.-P., Chapman H.A., Bhairi S.M., Deleeuw C., Reddy V.Y., Weiss S.J.FEBS Lett. 357:129-134(1995) Molecular cloning of human cDNA for cathepsin K novel cysteine proteinase predominantly expressed in bone.Inaoka T., Bilbe G., Ishibashi O., Tezuka K., Kumegawa M., Kokubo T.Biochem. Biophys. Res. Commun. 206:89-96(1995) Cloning and complete coding sequence of a novel human cathepsin expressed in giant cells of osteoclastomas.Li Y., Alexander M., Wucherpfennig A.L., Yelick P., Chen W., Stashenko P.J. Bone Miner. Res. 10:1197-1202(1995) Human cathepsin O2, a novel cysteine protease highly expressed in osteoclastomas and ovary molecular cloning, sequencing and tissue distribution.Broemme D., Okamoto K.Biol. Chem. Hoppe-Seyler 376:379-384(1995) Mural R.J., Istrail S., Sutton G., Florea L., Halpern A.L., Mobarry C.M., Lippert R., Walenz B., Shatkay H., Dew I., Miller J.R., Flanigan M.J., Edwards N.J., Bolanos R., Fasulo D., Halldorsson B.V., Hannenhalli S., Turner R., Yooseph S., Lu F., Nusskern D.R., Shue B.C., Zheng X.H., Zhong F., Delcher A.L., Huson D.H., Kravitz S.A., Mouchard L., Reinert K., Remington K.A., Clark A.G., Waterman M.S., Eichler E.E., Adams M.D., Hunkapiller M.W., Myers E.W., Venter J.C. Crystal structure of human cathepsin K complexed with a potent inhibitor.McGrath M.E., Klaus J.L., Barnes M.G., Bromme D.Nat. Struct. Biol. 4:105-109(1997) Design of potent and selective human cathepsin K inhibitors that span the active site.Thompson S.K., Halbert S.M., Bossard M.J., Tomaszek T.A., Levy M.A., Zhao B., Smith W.W., Abdel-Meguid S.S., Janson C.A., D'Alessio K.J., McQueney M.S., Amegadzie B.Y., Hanning C.R., Desjarlais R.L., Briand J., Sarkar S.K., Huddleston M.J., Ijames C.F., Carr S.A., Ganes K.T., Shu A., Heys J.R., Bradbeer J., Zembryki D., Veber D.F.Proc. Natl. Acad. Sci. U.S.A. 94:14249-14254(1997) The crystal structure of human procathepsin K.LaLonde J.M., Zhao B., Janson C.A., D'Alessio K.J., McQueney M.S., Orsini M.J., Debouck C.M., Smith W.W.Biochemistry 38:862-869(1999) Crystal structure of wild-type human procathepsin K.Sivaraman J., Lalumiere M., Menard R., Cygler M.Protein Sci. 8:283-290(1999) Pycnodysostosis, a lysosomal disease caused by cathepsin K deficiency.Gelb B.D., Shi G.-P., Chapman H.A., Desnick R.J.Science 273:1236-1238(1996) Paternal uniparental disomy for chromosome 1 revealed by molecular analysis of a patient with pycnodysostosis.Gelb B.D., Willner J.P., Dunn T.M., Kardon N.B., Verloes A., Poncin J., Desnick R.J.Am. J. Hum. Genet. 62:848-854(1998) Mutations of CTSK result in pycnodysostosis via a reduction in cathepsin K protein.Ho N., Punturieri A., Wilkin D., Szabo J., Johnson M., Whaley J., Davis J., Clark A., Weiss S., Francomano C.J. Bone Miner. Res. 14:1649-1653(1999) Cathepsin K gene mutations and 1q21 haplotypes in at patients with pycnodysostosis in an outbred population.Haagerup A., Hertz J.M., Christensen M.F., Binderup H., Kruse T.A.Eur. J. Hum. Genet. 8:431-436(2000)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503151
NCBI GeneID	1513
NCBI Accession #	NP_000387.1
NCBI GenBank Nucleotide #	NM_000396.3
UniProt Accession #	P43235; Q6FHS6
Molecular Weight	25.5 kDa
NCBI Official Full Name	cathepsin K preproprotein
NCBI Official Synonym Full Names	cathepsin K
NCBI Official Symbol	CTSK
NCBI Official Synonym Symbols	CTSO; PKND; PYCD; CTSO2; CTSO1; CTSO2
NCBI Protein Information	cathepsin K
UniProt Protein Name	Cathepsin K
UniProt Gene Name	CTSK
UniProt Synonym Gene Names	CTSO; CTSO2
UniProt Entry Name	CATK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

