

CTHRC1 recombinant protein

CTHRC1 Protein, Mouse, Recombinant (His Tag), HPLC-verified

CATALOG #
AAA259257

HOST
HEK293 Cells

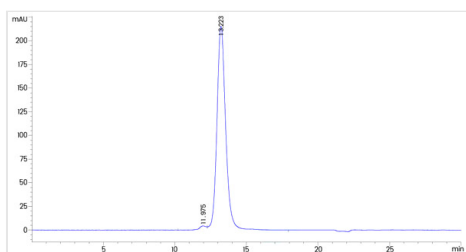
PRODUCT SYNONYMS

CTHRC1; CTHRC1 Protein; Mouse; Recombinant (His Tag); HPLC-verified; collagen triple helix repeat containing 1; 1110014B07Rik Protein; CTHRC1 recombinant protein

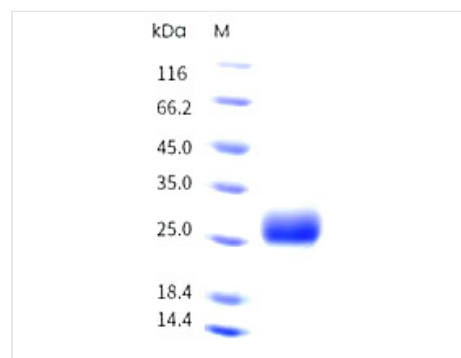
PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>= 95% as determined by SDS-PAGE. = 95% as determined by SEC-HPLC.
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Species	Mouse
Predicted N Terminal	Ser 33
Endotoxin	<1.0 EU per ug protein as determined by the LAL method.
Protein Construction	A DNA sequence encoding the Mouse CTHRC1 (Q9D1D6)(Met1-Lys245) was expressed with a polyhistidine tag at the C-terminus.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for CTHRC1 recombinant protein	Collagen triple helix repeat-containing protein 1, also known as Protein NMTC1, and CTHRC1, is a secreted protein that is glycosylated and highly conserved from lower chordates to mammals. CTHRC1 expression was not detectable in normal arteries. However, it is transiently expressed in the arterial wall in response to injury where it may contribute to vascular remodeling by limiting collagen matrix deposition and promoting cell migration. A short collagen motif with 12 Gly-X-Y repeats appears to be responsible for trimerization of the CTHRC1 protein and this renders the molecule susceptible to cleavage by collagenase. CTHRC1 overexpression caused a dramatic reduction in collagen type I mRNA and protein levels. Currently available data indicate that Cthrc1 expression in vascular cells regulates transforming growth factor beta responsiveness, thereby impacting transforming growth factor beta target genes, including collagens. Additionally, CTHRC1 increases bone mass as a positive regulator of osteoblastic bone formation and offers an anabolic approach for the treatment of osteoporosis.
References	Pygay P, et al. (2005) Collagen triple helix repeat containing 1, a novel secreted protein in injured and diseased arteries, inhibits collagen expression and promotes cell migration. Circ Res. 96(2): 261-8.Durmus T, et al. (2006) Expression analysis of the novel gene collagen triple helix repeat containing-1 (Cthrc1). Gene Expr Patterns. 6(8): 935-40.LeClair R, et al. (2007) The role of collagen triple helix repeat containing 1 in injured arteries, collagen expression, and transforming growth factor beta signaling. Trends Cardiovasc Med. 17(6): 202-5.Kimura H, et al. (2008) Cthrc1 is a positive regulator of osteoblastic bone formation. PLoS One. 3(9): e3174.

NCBI AND UNIPROT INFORMATION

NCBI GI #	110625696
NCBI GeneID	68588
NCBI Accession #	NP_081054.1
NCBI GenBank Nucleotide #	NM_026778.2
UniProt Accession #	Q9D1D6; Q3UAP6
Molecular Weight	26,460 Da
NCBI Official Full Name	collagen triple helix repeat-containing protein 1
NCBI Official Synonym Full Names	collagen triple helix repeat containing 1
NCBI Official Symbol	Cthrc1
NCBI Official Synonym Symbols	1110014B07Rik
NCBI Protein Information	collagen triple helix repeat-containing protein 1
UniProt Protein Name	Collagen triple helix repeat-containing protein 1
UniProt Gene Name	Cthrc1
UniProt Entry Name	CTHR1_MOUSE

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.