

## Recombinant Human HtrA1, Truncated, His-tagged

**Cat. No.** HtrA1-2889H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human HtrA1 $\Delta$ 1-141 is purified from E. coli cytoplasm. The protein consists of amino acids 141-480 of full-length HtrA1 and a C-terminal His6-tag and contains the catalytic and PDZ domain. Recombinant HtrA1 $\Delta$ 1-141 appears as a major protein of about 37 kDa.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-141;141-480 a.a.
<b>Description</b>	Secreted human HtrA1 serine protease is supposed to form oligomers of identical protein chains as revealed by X-ray analysis for the bacterial HtrA protein DegP. Polypeptide chains of human HtrA1 consist of several domains: An N-terminal insulin-like growth factor domain is followed by a Kazal-type serine protease inhibitor domain, a linker region, a trypsin-like protease domain and a PDZ domain. The function of HtrA1 appears closely linked to signaling by proteins of the TGFs family. During mouse embryo development HtrA1 is localized in specific areas where signaling by TGFs family proteins occurs. HtrA1 binds TGFs, BMP4, Gdf5 and activin. It inhibits signaling by these factors. For inhibition serine protease activity of HtrA1 is essential.
<b>Form</b>	HtrA1 is dissolved in 50 mM Na-phosphate, pH 7.5, 300 mM NaCl.
<b>Purity</b>	It represents more than 50% of total protein in the preparation.

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**Enzymatic Activity** Proteolytic activity of recombinant human HtrA1 is documented by digestion of  $\beta$ -casein. 0.5 mg/ml  $\beta$ -casein are completely digested by 5  $\mu$ g/ml HtrA1 within 4 hours at 37°C (see figure below).

**Applications** Recombinant HtrA1 allows detailed studies of the structure and function of this protease. The enzyme is used to screen for inhibitors and to characterize inhibitor actions. Recombinant HtrA1 can also serve as standard in enzymatic and immunochemical assays.

**Stability And Storage** Recombinant human HtrA1 is stable until the expiry date given on the label when stored at -70°C. Repeated freezing and thawing should be avoided.

## GENE INFORMATION

**Gene Name** [HTRA1 HtrA serine peptidase 1 \[ Homo sapiens \]](#)

**Synonyms** HTRA1; HtrA serine peptidase 1; L56; HtrA; ARMD7; ORF480; PRSS11; serine protease HTRA1; IGFBP5-protease; protease, serine, 11 (IGF binding); HTRA; Serine protease 11; EC 3.4.21.-

**Gene ID** [5654](#)

**mRNA Refseq** [NM\\_002775](#)

**Protein Refseq** [NP\\_002766](#)

**MIM** [602194](#)

**UniProt ID** [Q92743](#)

**Chromosome** 10q26.3

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**Location**

**Function**

insulin-like growth factor binding; peptidase activity; serine-type endopeptidase activity

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