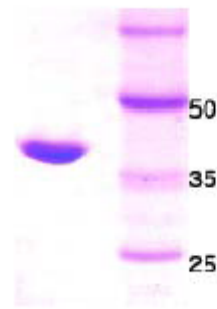


SA6060**Recombinant human HtrA2/Omi (aa 134-458), His-tagged**

Alternate names:	High temperature requirement protein A2, OMI, Omi stress-regulated endoprotease, Serine protease 25, Serine proteinase OMI, mitochondrial Serine protease HTRA2
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	HtrA2/Omi is a mammalian serine protease at high temperatures and has a chaperone activity at low temperature. The full-length HtrA2 is synthesized as a precursor protein and then targeted to the mitochondria where it is matured by the removal of N-terminal 133 residues. Mature HtrA2 consists of a putative transmembrane domain; an inhibitor of apoptosis protein (IAP)-binding motif; a single C-terminal PDZ domain that mediates protein-protein interactions. Recently, HtrA2 has known to contribute both to caspase-dependent and caspase-independent cell death.
Uniprot ID:	O43464
NCBI:	NP_037379.1
GenelD:	27429
Species:	Human
Source:	E. coli
Format:	State: Liquid purified protein Purity: >95% by SDS PAGE Buffer System: 20 mM Tris-HCl buffer (pH 8.0), 50 mM NaCl, 1 mM DTT, 20% Glycerol
Description:	Mature form of HtrA2/Omi(residues 134-458), fused to His-tag, was overexpressed in E.coli, and purified by conventional column chromatography techniques. AA Sequence: MAVPSPPPAS PPSQYNFAD VVEKTAPAVV YIEILDRHPF LGREVPISNG SGFVVAADGL IVTNAHVAD RRRVRVRLLS GDTYEAVVTA VDPVADIATL RIQTKEPLPT LPLGRSADVR QGEFVVAMGS PFALQNTITS GIVSSAQRPA RDLGLPQTNV EYIQTDAID FGNAGGPLVN LDGEVIGVNT MKVTAGISFA IPSDRLREFL HRGEKKNSSS GISGSQRRYI GVMMLTSLPS ILAEQLREP SFPDVQHGVL IHKVILGSPA HRAGLRPGDV ILAIGEPMVQ NAEDVYEA VR TQSQLAVQIR RGRETLTLYV TPEVTEGSHH HHHH Molecular weight: 36 kDa
Storage:	Store (in aliquots) at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	Savopoulos JW., et al., (2000) Protein Expr. Purif. 19, 227-34. Gray CW, et al., (2000) Eur. J. Biochem. 267, 5699-710. Martins LM, et al., (2002) J. Biol. Chem. 277, 439-44. Van Loo G, et al., (2002) Cell Death Differ. 9, 20-60. Seong YM, et al., (2004) Protein Expr. Purif. 33, 200-8.

Pictures:

HtrA2/Omi: 15% SDS-PAGE



HtrA2/Omi 134-458 cleavage of β -Casein (Serine protease activity assay) Assay

Methods: Increasing amounts of human HtrA2/Omi 134-458 (5 μ g to 30 μ g) were added to 30 μ g of β -casein from bovine (Sigma, C6905) in 20 mM Tris, 50 mM NaCl, 20% Glycerol, 1 mM DTT, pH 8.0 (Reaction volume: 200 μ L). The samples were mixed and incubated at 37 $^{\circ}$ C for 2 hours. The reaction was stopped by the addition of 5X SDS sample buffer and heating at ~100 $^{\circ}$ C for 5 minutes. 15 μ L of each cleavage samples was loaded and run by SDS/PAGE on a 15% gel and visualized by Coomassie staining/destaining.

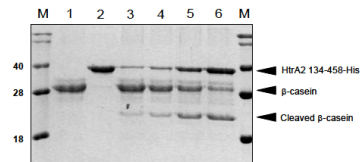


Fig.1 Activity assay result of HtrA2/Omi after incubation at 37 $^{\circ}$ C for 2hours with β -casein as substrate.

M : ATGen mid-range marker, 1: β -casein 30 μ g, 2: HtrA2 134-458-His 30 μ g
3: β -casein 30 μ g + HtrA2 134-458-His 5 μ g, 4: β -casein 30 μ g + HtrA2 134-458-His 10 μ g
5: β -casein 30 μ g + HtrA2 134-458-His 20 μ g, 6: β -casein 30 μ g + HtrA2 134-458-His 30 μ g

