Data Sheet (Cat.No.TMPY-02078)

TargetMol

HtrA2/Omi Protein, Human, Recombinant (His)

General Information

Synonyms:	PARK13;OMI;HtrA serine peptidase 2;PRSS25
Protein Construction:	A DNA sequence encoding the mature form of human HTRA2 (O43464-1) (Ala 134-Glu 458) was expressed, with a polyhistide tag at the C-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	O43464-1
Molecular Weight:	36.5 kDa (predicted); 36.5 kDa (reducing conditions)

QC Testing

Biological Activity:	Protease activity demonstrated by HtrA2 cleavage of bovine β-casein. Incubation of β-casein at 0.2 mg/mL with Recombinant Human HTRA-2 at 0.02 mg/mL (ratio of 10:1) for 60 minutes at 45℃ in 50 mM Tris, pH 8.0, which results in >95% cleavage of β-casein, as revealed by SDS-PAGE.
Purity:	> 87 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Supplied as sterile 50 mM Tris, 0.3M NaCl, 1 mM DTT, 20% Glycerol, pH 7.8.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Serine protease HTRA2, also known as high-temperature requirement protein A2, Omi stress-regulated endoprotease, Serine protease 25, Serine proteinase OMI and HTRA2, is a single-pass membrane protein that belongs to the peptidase S1B family. HTRA2 contains one PDZ (DHR) domain. HTRA2 is a serine protease that shows proteolytic activity against a non-specific substrate beta-casein. It promotes or induces cell death either by direct binding to and inhibition of BIRC proteins (also called inhibitor of apoptosis proteins, IAPs), leading to an increase in caspase activity or by a BIRC inhibition-independent, caspase-independent, and serine protease

activity-dependent mechanism. HTRA2 cleaves THAP5 and promotes its degradation during apoptosis. Isoform 2 of HTRA2 seems to be proteolytically inactive. Defects in HTRA2 are the cause of Parkinson disease type 13 (PARK13) which is a complex neurodegenerative disorder characterized by bradykinesia, resting tremor, muscular rigidity, and postural instability, as well as by a clinically significant response to treatment with levodopa.

Reference

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Suzuki Y., et al., 2001, Mol. Cell 8:613-621.
Strauss K.M., et al., 2005, Hum. Mol. Genet. 14:2099-2111.

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