Recombinant E. coli Lon Protease

Catalog No: C116

Description	Recombinant E.coli Lon Protease is produced by our E.coli expression system and the target gene encoding Asn2-Lys784 is expressed with a 6His tag at the C-terminus.
Source	E.coli
Alternative name	Lon Protease; ATP-Dependent Protease La; lon; capR; deg; lopA; muc
Accession No.	P0A9M0
Formulation	Supplied as a 0.2 μm filtered solution of 50mM TrisHCl, 100mM KCl, 10% Glycerol, pH 7.5 .
Quality Control	Bioactivity* Measured by its hydrolysis activity of proteins in presence of ATP Specific Activity is greater than 0.083mg casein/mg enzyme/min Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 IEU/μg).
Shipping	The product is shipped on dry ice/polar packs. Upon receipt, store it immediately at the temperature listed below.
Storage	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Amino Acid Sequence	MGNPERSERIEIPVLPLRDVVVYPHMVIPLFVGREKSIRCLEAAMDHDKKIMLVAQKEASTDEPGVND LFTVGTVASILQMLKL PDGTVKVLVEGLQRARISALSDNGEHFSAKAEYLESPTIDEREQEVLVRTAISQFEGYIKLNKKIPPEV LTSLNSIDDPARLADTIAA HMPLKLADKQSVLEMSDVNERLEYLMAMMESEIDLLQVEKRIRNRVKKQMEKSQREYYLNEQMKAI QKELGEMDDAPDENE ALKRKIDAAKMPKEAKEKAEAELQKLKMMSPMSAEATVVRGYIDWMVQVPWNARSKVKKDLRQAQ EILDTDHYGLERVKD RILEYLAVQSRVNKIKGPILCLVGPPGVGKTSLGQSIAKATGRKYVRMALGGVRDEAEIRGHRRTYIG SMPGKLIQKMAKVGVK NPLFLLDEIDKMSSDMRGDPASALLEVLDPEQNVAFSDHYLEVDYDLSDVMFVATSNSMNIPAPLLD RMEVIRLSGYTEDEKLN IAKRHLLPKQIERNALKKGELTVDDSAIIGIIRYYTREAGVRGLEREISKLCRKAVKQLLLDKSLKHIEIN GDNLHDYLGVQRFDYGR ADNENRVGQVTGLAWTEVGGDLLTIETACVPGKGKLTYTGSLGEVMQESIQAALTVVRARAEKLGIN PDFYEKRDIHVHVPEG ATPKDGPSAGIAMCTALVSCLTGNPVRADVAMTGEITLRGQVLPIGGLKEKLLAAHRGGIKTVLIPFEN KRDLEEIPDNVIADLDI HPVKRIEEVLTLALQNEPSGMQVVTAKLEHHHHHH
Background	Lon Protease, is a member of the Lon protease family. They are found in archaea, bacteria and eukaryotes. Lon protease is ATP-dependent serine protease that mediates the selective degradation of mutant and abnormal proteins as well as certain short-lived regulatory proteins, including some antitoxins. It required for cellular homeostasis and for survival from DNA damage and developmental changes induced by stress. It degrades polypeptides processively to yield small peptide fragments that are 5 to 10 amino acids long and binds to DNA in a double-stranded, site-specific manner. Endogenous substrates include the regulatory proteins RcsA and SulA, the transcriptional activator SoxS, and UmuD. Its overproduction specifically inhibits translation through at least two different pathways, one of them being the YoeB-YefM toxin-antitoxin system.

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