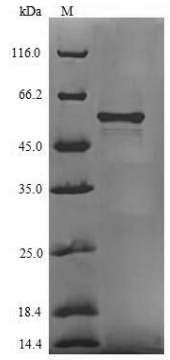
Recombinant Bacteroides fragilis Chaperone protein htpG (htpG), partial

Product Code	CSB-EP711569BAAB
Relevance	Molecular chaperone. Has ATPase activity.
Abbreviation	Recombinant Bacteroides fragilis htpG protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q5LCH4
Product Type	Recombinant Protein
Immunogen Species	Bacteroides fragilis (strain ATCC 25285 / DSM 2151 / JCM 11019 / NCTC 9343)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MQKGNIGVTTENIFPIIKKFLYSDHEIFLRELVSNAVDATQKLNTLASISEFKGEL GDLTVHVSLGKDTITISDRGIGLTAEEIDKYINQIAFSGANDFLEKYKNDANAIIG HFGLGFYSAFMVSKKVEIITKSYKEGAQAVKWTCDGSPEFTLEEVEKADRGTD IVLYIDDDCKEFLEESRISALLKKYCSFLPVPIAFGKKKEWKDGKQVETAEDNVI NDTIPLWTKKPSELSDEDYKKFYRELYPMSDEPLFWIHLNVDYPFHLTGILYFP KVKSNIDLNKNKIQLYCNQVYVTDSVEGIVPDFLTLLHGVLDSPDIPLNVSR
Research Area	others
Source	E.coli
Target Names	htpG
Protein Names	Heat shock protein HtpG High temperature protein G
Expression Region	1-326aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	57.0 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant B. fragilis htpG expression in E.coli requires the insertion of the target DNA fragment into an E.coli expression vector, routinely a plasmid vector, and the transferral of this vector into E.coli cells. The cells are then cultured and induced to express this htpG protein. The cells are harvested by centrifugation, samples prepared and proteins detected by polyacrylamide gel electrophoresis and subsequent staining of the gel with Coomassie Brilliant Blue or silver stain or by immunoblotting. The htpG protein expression in E.coli is highly scalable and can be adjusted from the bacterial colony to conical flasks for liquid cultures, to fermentation reaction chambers.

ClpB and HtpG promote de novo protein folding in stressed E.coli cells. HtpG is a prokaryotic homolog of Hsp90 that stabilizes the bile body protein in the cyanobacterium Polychlorococcus elongatus PCC 7942. HtpG plays a role in cold acclimation in cyanobacteria. HtpG protein does not act as a cellular thermometer in Bacillus subtilis. The expression of htpG was found to be significantly up-regulated in P. plecoglossicida at its virulence temperature of 18°C.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.