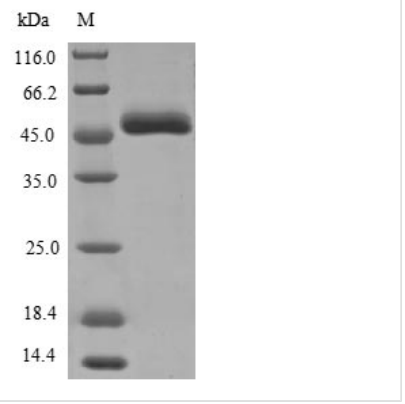
Recombinant Aspergillus kawachii Probable endo-beta-1,4-glucanase D (eglD)

Product Code	CSB-EP836318APO
Relevance	Has endoglucanase activity on substrates containing beta-1,4 glycosidic bonds, like in carboxymethylcellulose (CMC), hydroxyethylcellulose (HEC) and beta-glucan. Involved in the degradation of complex natural cellulosic substrates
Abbreviation	Recombinant Aspergillus kawachii eglD protein
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.	Q96WQ9
Product Type	Recombinant Protein
Immunogen Species	Aspergillus kawachii (strain NBRC 4308) (White koji mold) (Aspergillus awamori var. kawachi)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	HTTVQAVWINGEDQGLGNTDDGYIRSPPSNSPVTDVTSTDMTCNVNGDQAAS KTLSVKAGDVVTFEWHHSDRSDSDDIIASSHKGPVQVYMAPTAKGSNGNNWV KIAEDGYHKSSDEWATDILIANKGKHNITVPDVPAGNYLFRPEIIALHEGNREGG AQFYMECVQFKVTSDGSNELPSGVSIPGVYTATDPGILFDIYNSFDSYPIPGPD VWDGSSSGSSSSGSSSAAVSSAAAAATTSAVAATTPATQAAVEVSSSAAAAT TEAAAPVVSSAAPVQQATSAVTSQAQAAPTTFATSSKKSSKTACKNKTKSNSQ VAAATSSVVAPAATSSVVPVVSASASASAGGVAKQYERCGGINHTGPTTCES GSVCKKWNPYYYQCVASQ
Research Area	Others
Source	E.coli
Target Names	eglD
Protein Names	Carboxymethylcellulase D Cellulase 61A Cellulase D cel61A
Expression Region	21-408aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged
Mol. Weight	45.2 kDa
Protein Length	Full Length of Mature Protein
Image	



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

Description

Amino acids 21-408 form the expressed segment for recombinant Aspergillus kawachii eglD. This eglD protein is expected to have a theoretical molecular weight of 45.2 kDa. Expression of this eglD protein is conducted in e.coli. Fusion of the N-terminal 10xHis tag into the eglD encoding gene fragment was conducted, allowing for easier detection and purification of the eglD protein in subsequent stages.

Aspergillus kawachii Probable endo-beta-1,4-glucanase D (eglD) primarily functions as an endo-β-1,4-glucanase enzyme, specializing in the hydrolysis of internal glycosidic bonds within cellulose. Its main role is in cellulose degradation, contributing to the breakdown of complex carbohydrates. In the realm of biotechnology and enzyme research, the investigation of eglD provides valuable insights into processes related to cellulose utilization. The potential applications extend to biofuel production and biomass conversion, addressing challenges in sustainable energy. Moreover, eglD's involvement in microbial cellulose degradation makes it pertinent in environmental and agricultural contexts.

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

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