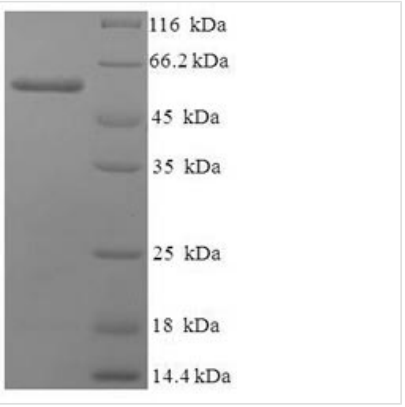
Recombinant Human Polyadenylate-binding protein 1 (PABPC1), partial

Product Code	CSB-EP017352HU
Relevance	Binds the poly(A) tail of mRNA, including that of its own transcript. May be involved in Cytoplasmic domain regulatory processes of mRNA metabolism such as pre-mRNA splicing. Its function in translational initiation regulation can either be enhanced by PAIP1 or repressed by PAIP2. Can probably bind to Cytoplasmic domain RNA sequences other than poly(A) in vivo. Involved in translationally coupled mRNA turnover. Implicated with other RNA-binding proteins in the Cytoplasmic domain deadenylation/translational and decay interplay of the FOS mRNA mediated by the major coding-region determinant of instability (mCRD) domain. Involved in regulation of nonsense-mediated decay (NMD) of mRNAs containing prature stop codons; for the recognition of prature termination codons (PTC) and initiation of NMD a competitive interaction between UPF1 and PABPC1 with the ribosome-bound release factors is proposed.
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.	P11940
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MNPSAPSYPMASLYVGDLHPDVTEAMLYEKFSPAGPILSIRVCRDMITRRSLG YAYVNFQQPADAERALDTMNFDVIKGKPVRIMWSQRDPSLRKSGVGNIFIKNL DKSIDNKALYDTFSAFGNILSCKVVCDENGSKGYGFVHFETQEAAERAIEKMN GMLLNDRKVFVGRFKSRKEREAELGARAKEFTNVYIKNFGEDMDDERLKDLF GKFGPALSVKVMTDESGKSKGFGFVSFERHEDAQKAVDEMNGKELNGKQIYV GRAQKKVERQTELKRKFEQMKQDRITRYQGVNLYVKNLDDGIDDERLRKEFS PFGTITSAKVMMEGGRSKGFGFVCFSSPEEATKAVTEMNGRIVATKPLYVALA QR
Lead Time	3-7 business days
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Gene Names	PABPC1
Expression Region	1-370aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	57.8kDa
Protein Description	Partial

Image



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

Description

The synthesis of this Recombinant Human PABPC1 protein depends on the utilization of recombinant DNA technology. DNA sequences that encoded the PABPC1 protein could be inserted into a vector and introduced into an expression host, E.coli, where it could be easily expressed in and purified from. The expression of this PABPC1 protein was at 1-370aa. N-terminal 6xHis-SUMO tag was fused with this protein. The purity is 90%+ determined by SDS-PAGE.

PABPC1 (also known as PAB1 or PABP) is gene encoding a protein named polyadenylate-binding protein 1 (PABPC1 or PABP-1) in human. The protein encoded by this gene is also known as poly(A)-binding protein 1. Increasing studies has shown that the protein encoded by PABPC1 gene is cleaved during poliovirus and coxsackievirus infection by viral 3Cprotease and that 3Cprotease modification of a subset of PABP can result in significant translation inhibition. The encoded protein can bind to mRNA 3'-UTR, poly(A), poly(U) RNA and protein C-terminus. It is involved in multiple biological processes with its translation activator activity.

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.