

Datasheet for ABIN3135926

## PEG10 Protein (AA 1-958) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	PEG10
Protein Characteristics:	AA 1-958
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PEG10 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AlIcE®
Sequence:	<p>MAAAGGSSNC PPPPPPPPN NNNNNNTPKS PGVPDAEDDD ERRHDELPED INNFD EDMNR</p> <p>QFENMNLLDQ VELLAQSYSL LDHLDDFDDD DEDDDFDPEP DQDELPEYSD DDDLELQGAA</p> <p>AAIPNFFSD DDCLEDLPEK FDGNPDMLGP FMYQCQLFME KSTRDFSVD IRVCFVTSML</p> <p>IGRAARWATA KLQRCTYLMH NYTAFMMELK HVFEDPQRRE AAKRKIRRLR QGPGPVVDYS</p> <p>NAFQMIAQDL DWTEPALMDQ FQEGLNPDIR AELSRQEAPK TLAALITACI HIERRLARDA</p> <p>AAKPDPSPRA LVMP PNSQTD PTEPVGGARM RLSKEEKERR RKMNLCLYCG NGGHFADTCP</p> <p>AKASKNSPPG KLP GPAVGGP SATGPERIRS PPSEASTQHL QVMLQIHMPG RPTLFV RAMI</p> <p>DSGASGNFID QDFVIQNAIP LRIKDWPMV E AIDGHPIAS GPIILETHHL IVDLGDHREI</p> <p>LSFDVTQSPF FPIVLGIRWL STHDPHITWS TRSIVFNSDY CRLRCRMFAQ IPSNLLFTVP</p> <p>QPNLHPYLLH HVHPHVHPHM HQHLHQHLHQ FLHPDPHQYP HPDPHYHHHQ QADMQHQLQQ</p> <p>YLYQYLYYHL YPVMHHHLPP DQHEHLHEYL HQYLHQYLHQ FLHHHLHPDL HQYLYQYLHN</p>

HMNPDPHHP HPDPPQDPHH PPHQDPHQHP DPHQDPPHQD PHQDAHQDPH MDPHLHQHQH  
PQPQHPQQH PNHPQQPPFF YHMAGFRIYH PVRYYYIQNV YTPVDEHVYP GHRVVDPNIE  
MIPGAHSLPS GHLYSMSESE MNALRNFVDR NVKDGLMTPT VAPNGAQVLQ VKRGWKLQVT  
YNCRAPQSGT IQNQYLRMSL PNMGDPAHLA SYGEFVQVPG YPYPAYVYYT SPHMMTAWYP  
VGRDVHGRII VVPVVITWSQ NTRQPPVPQ YPPPQPPPP PPPPPPPPP PASSCSAA

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

---

### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

## Product Details

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: PEG10

Alternative Name: Peg10 ([PEG10 Products](#))

Background: Retrotransposon-derived protein PEG10 (MmPEG10) (Embryonal carcinoma differentiation regulated protein) (Mammalian retrotransposon-derived protein 2) (Myelin expression factor 3) (MyEF-3) (Myelin expression factor 3-like protein 1) (MEF3-like protein 1) (Paternally expressed gene 10 protein) (Retrotransposon gag domain-containing protein 3) (Retrotransposon-derived gag-like polyprotein) (Ty3/Gypsy-like protein),FUNCTION: Retrotransposon-derived protein that binds its own mRNA and self-assembles into virion-like capsids (PubMed:30951545, PubMed:34413232). Forms virion-like extracellular vesicles that encapsulate their own mRNA and are released from cells, enabling intercellular transfer of PEG10 mRNA (PubMed:34413232). Binds its own mRNA in the 5'-UTR region, in the region near the boundary between the nucleocapsid (NC) and protease (PRO) coding sequences and in the beginning of the 3'-UTR region (PubMed:34413232). Involved in placenta formation: required for trophoblast stem cells differentiation (PubMed:16341224, PubMed:30951545). Involved at the immediate early stage of adipocyte differentiation (PubMed:17707377). Overexpressed in many cancers and enhances tumor progression: promotes cell proliferation by driving cell cycle progression from G0/G1 (By similarity). Enhances cancer progression by inhibiting the TGF-beta signaling, possibly via interaction with the TGF-beta receptor ACVRL1 (By similarity). May bind to the 5'-GCCTGTCTTT-3' DNA sequence of the MB1 domain in the myelin basic protein (MBP) promoter, additional evidences are however required to confirm this result (PubMed:9473521). {ECO:0000250|UniProtKB:Q86TG7, ECO:0000269|PubMed:16341224, ECO:0000269|PubMed:17707377, ECO:0000269|PubMed:30951545, ECO:0000269|PubMed:34413232, ECO:0000269|PubMed:9473521}.

Molecular Weight: 109.8 kDa

UniProt: [Q7TN75](#)

## Application Details

**Application Notes:** In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

**Comment:** ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

**Restrictions:** For Research Use only

## Handling

**Format:** Liquid

**Buffer:** The buffer composition is at the discretion of the manufacturer.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

**Storage Comment:** Store at -80°C.

**Expiry Date:** 12 months