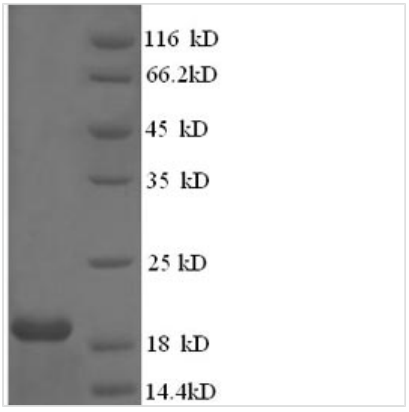
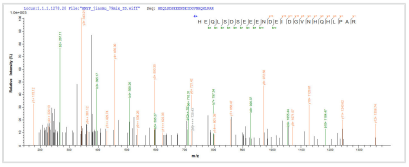
Recombinant Human papillomavirus type 18 Protein E7 (E7)

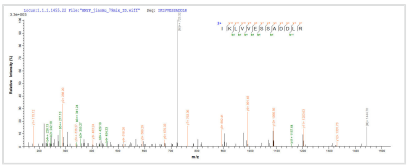
Product Code	CSB-EP361948HMN
Relevance	E7 protein has both transforming and trans-activating activities. Disrupts the function of host retinoblastoma protein RB1/pRb, which is a key regulator of the cell cycle. Induces the disassbly of the E2F1 transcription factors from RB1, with subsequent transcriptional activation of E2F1-regulated S-phase genes. Inactivation of the ability of RB1 to arrest the cell cycle is critical for cellular transformation, uncontrolled cellular growth and proliferation induced by viral infection. Stimulation of progression from G1 to S phase allows the virus to efficiently use the cellular DNA replicating machinery to achieve viral genome replication. Interferes with histone deacetylation mediated by HDAC1 and HDAC2, leading to activation of transcription .
Abbreviation	Recombinant Human papillomavirus type 18 E7 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.	P06788
Product Type	Recombinant Proteins
Immunogen Species	Human papillomavirus type 18
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MHGPKATLQDIVLHLEPQNEIPVDLLCHEQLSDSEEENDEIDGVNHQHLPARR AEPQRHTMLCMCCKCEARIKLVVESSADDLRAFQQLFLNTLSFVCPWCASQQ
Source	E.coli
Target Names	E7
Expression Region	1-105aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	16.0kDa
Protein Length	Full Length
Image	



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



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP361948HMN could indicate that this peptide derived from E.coli-expressed Human papillomavirus type 18 E7.



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Description

The recombinant human papillomavirus type 18 E7 protein is a fusion protein consists of the human papillomavirus type 18 E7 protein (1-105aa) partnered with the N-terminal 6xHis tag. It was produced in the E.coli. This recombinant human papillomavirus type 18 E7 protein's urity is greater than 90% determined by SDS-PAGE. After electrophoresis, there is a 19 kDa protein band presented on the gel.

E7 proteins encoded by the cancer-associated alpha human papillomaviruses have potent transforming activities, which together with E6, are necessary but not sufficient to render their host squamous epithelial cell tumorigenic. HPV E7 proteins consist of approximately 100 amino acid residues. There are no cellular proteins that share extensive sequence similarities to E7. E7 proteins play a central role in the human papillomavirus life cycle, reprogramming the cellular environment to be conducive to viral replication. Some researches noted that the oncogenic activities of the high-risk alpha HPV E7 proteins represent functions related to the viral life cycle and/or arise as a consequence of a specific replication strategy that these viruses have adopted to establish a long-term persistent infection and/or produce viral progeny.

Shelf Life

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