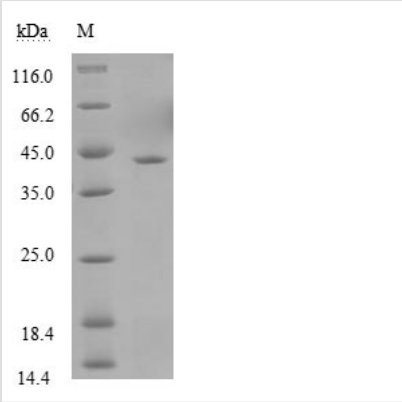
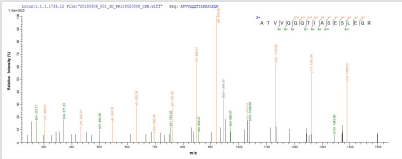
# Recombinant Zaire ebolavirus Polymerase cofactor VP35 (VP35)

| | |
|---|---|
| **Product Code** | CSB-EP764950ZAT |
| **Relevance** | Acts as a polymerase cofactor in the RNA polymerase transcription and replication complex. Prevents establishment of cellular antiviral state by blocking virus-induced phosphorylation and activation of interferon regulatory factor 3 (IRF3), a transcription factor critical for the induction of interferons alpha and beta. This blockage is produced through the interaction with and inhibition host IKBKE and TBK1 producing a strong inhibition of the phosphorylation and activation of IRF3. Also inhibits the antiviral effect mediated by the interferon-induced, double-stranded RNA-activated protein kinase EIF2AK2/PKR |
| **Abbreviation** | Recombinant Zaire ebolavirus VP35 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.** | Q6V1Q9 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Zaire ebolavirus (strain Kikwit-95) (ZEBOV) (Zaire Ebola virus) |
| **Purity** | Greater than 85% as determined by SDS-PAGE. |
| **Sequence** | MTTRTKGRGHTAATTQNDRMPGPELSGWISEQLMTGRIPVSDIFCDIENNPGL CYASQMQQTKPNPKTRNSQTQTDPICNHSFEEVVQTLASLATVVQQQTIASES LEQRITSLENGLKPVYDMAKTISSLNRVCAEMVAKYDLLVMTTGRATATAAATE AYWAEHGQPPPGPSLYEESAIRGKIESRDETVPQSVREAFNNLDSTTSLTEEN FGKPDISAKDLRNIMYDHLPGFGTAFHQLVQVICKLGKDSNSLDIIHAEFQASLA EGDSPQCALIQITKRVPIFQDAAPPVIHIRSRGDIPRACQKSLRPVPPSPKIDRG WVCVFQLQDGKTLGLKI |
| **Research Area** | others |
| **Source** | E.coli |
| **Target Names** | VP35 |
| **Protein Names** | Recommended name: Polymerase cofactor VP35 |
| **Expression Region** | 1-340aa |
| **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 and C-terminal Myc-tagged |
| **Mol. Weight** | 42.4kDa |
| **Protein Length** | Full Length |

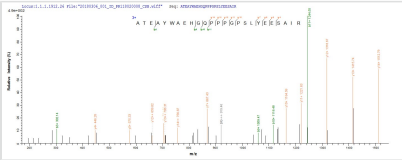
## Image




(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-EP764950ZAT could indicate that this peptide derived from E.coli-expressed Zaire ebolavirus (strain Kikwit-95) (ZEBOV) (Zaire Ebola virus) VP35.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP764950ZAT could indicate that this peptide derived from E.coli-expressed Zaire ebolavirus (strain Kikwit-95) (ZEBOV) (Zaire Ebola virus) VP35.

## Description

The region for expressing recombinant Zaire ebolavirus VP35 contains amino acids 1-340. The calculated molecular weight for this VP35 protein is 42.4 kDa. This VP35 recombinant protein is manufactured in e.coli. Fusion of the N-terminal 10xHis tag and C-terminal Myc tag into the VP35 encoding gene fragment was conducted, allowing for easier detection and purification of the VP35 protein in subsequent stages.

Zaire ebolavirus polymerase cofactor VP35 is a critical component of the viral RNA synthesis machinery during Ebola virus infection. VP35 mainly acts as a polymerase cofactor and a dsRNA-binding protein and is essential for viral replication and immune evasion. Studying VP35 provides insights into viral replication mechanisms, host-virus interactions, and antiviral drug design. In virology, VP35 research contributes to understanding Ebola virus pathogenesis and developing antiviral strategies. In immunology, VP35's role in modulating host immune responses is relevant for vaccine development. Additionally, understanding VP35's immunomodulatory functions offers avenues for developing therapeutic interventions and vaccines against the Ebola virus and related filoviruses.

## 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.<br>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. |