

# PRODUCT INFORMATION

## Ebola Virus VP40 (subtype Sudan, strain Gulu) (recombinant)

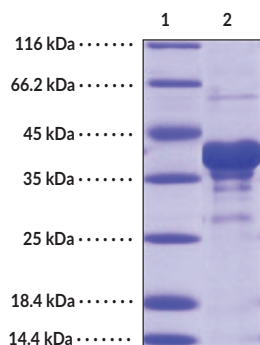
Item No. 41065

### Overview and Properties

|                               |                                                                                |
|-------------------------------|--------------------------------------------------------------------------------|
| <b>Synonyms:</b>              | EBOV Matrix Protein VP40, EBOV Viral Protein 40, EBOV Virion Protein 40        |
| <b>Source:</b>                | Recombinant Ebola virus N-terminal His-tagged VP40 expressed in <i>E. coli</i> |
| <b>Amino Acids:</b>           | 31-326                                                                         |
| <b>Uniprot No.:</b>           | Q5XX06                                                                         |
| <b>Molecular Weight:</b>      | 34.5 kDa                                                                       |
| <b>Storage:</b>               | -80°C (as supplied)                                                            |
| <b>Stability:</b>             | ≥1 year                                                                        |
| <b>Purity:</b>                | ≥80% estimated by SDS-PAGE                                                     |
| <b>Supplied in:</b>           | Lyophilized from sterile 50 mM Tris with 500 mM sodium chloride                |
| <b>Protein Concentration:</b> | <i>batch specific</i> mg/ml                                                    |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Image



Lane 1: MW Markers  
Lane 2: Ebola Virus VP40 (subtype Sudan, strain Gulu) (recombinant)

SDS-PAGE Analysis of Ebola Virus VP40 (subtype Sudan, strain Gulu) (recombinant).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/06/2024

### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM

# PRODUCT INFORMATION



## Description

Ebola virus (EBOV) is an enveloped and negative-stranded RNA virus, a member of the *Ebolavirus* genus, and the causative agent of Ebola virus disease (EVD), a condition characterized by a hemorrhagic fever and a high mortality rate, that is endemic to western and equatorial Africa.<sup>1</sup> The single-stranded RNA genome of EBOV encodes seven proteins: nucleoprotein (NP), virion protein 40 (VP40), VP35, VP30, VP24, glycoprotein (GP), and an RNA-dependent RNA polymerase (L).<sup>1,2</sup> EBOV VP40 is a structural protein that is composed of an N-terminal oligomerization domain and a C-terminal domain that interacts with the host intracellular lipid bilayer.<sup>3,4</sup> VP40 exhibits oligomeric state-dependent functions, such as adding viral ribonucleocapsids to viral particles when in an octameric form and has roles in viral budding in its hexameric form, when bound to the cytoplasmic side of host lipid membranes.<sup>1,4</sup> EBOV VP40 is capable of forming viral-like particles in the absence of other viral proteins when expressed in mammalian cells.<sup>4</sup> Cayman's Ebola Virus VP40 (subtype Sudan, strain Gulu) (recombinant) protein consists of 295 amino acids and has a calculated molecular weight of 34.5 kDa.

## References

1. Rojas, M., Monsalve, D.M., Pacheco, Y., *et al.* Ebola virus disease: An emerging and re-emerging viral threat. *J. Autoimmun.* **106**, 102375 (2020).
2. Salata, C., Calistri, A., Alvisi, G., *et al.* Ebola virus entry: From molecular characterization to drug discovery. *Viruses* **11**(3), 274 (2019).
3. Dessen, A., Volchkov, V., Dolnik, O., *et al.* Crystal structure of the matrix protein VP40 from Ebola virus. *EMBO J.* **19**(16), 4228-4236 (2000).
4. Jasenosky, L.D., Neumann, G., Lukashevich, I., *et al.* Ebola virus VP40-induced particle formation and association with the lipid bilayer. *J. Virol.* **75**(11), 5205-5214 (2001).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM