

## GPC Protein, Lassa virus (Cell-Free, His)

<b>Cat. No.:</b>	HY-P702300
<b>Synonyms:</b>	Pre-glycoprotein polyprotein GP complex; Pre-GP-C
<b>Species:</b>	Virus
<b>Source:</b>	E. coli Cell-free
<b>Accession:</b>	P17332 (G259-R490)
<b>Gene ID:</b>	/
<b>Molecular Weight:</b>	29.7 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>G T F T W T L S D S    E G N E T P G G Y C    L T R W M L I E A E    L K C F G N T A V A</p> <p>K C N E K H D E E F    C D M L R L F D F N    K Q A I R R L K T E    A Q M S I Q L I N K</p> <p>A V N A L I N D Q L    I M K N H L R D I M    G I P Y C N Y S R Y    W Y L N H T S T G K</p> <p>T S L P R C W L I S    N G S Y L N E T K F    S D D I E Q Q A D N    M I T E M L Q K E Y</p> <p>I D R Q G K T P L G    L V D L F V F S T S    F Y L I S I F L H L    V K I P T H R H I V</p> <p>G K P C P K P H R L    N H M G I C S C G L    Y K Q P G V P V R W    K R</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	GPC functions as a cleaved signal peptide integral to the GP complex (GP-C), playing a crucial role in stabilizing the spike complex in its native conformation. This protein is essential for various stages of the viral life cycle, including efficient glycoprotein expression, post-translational maturation cleavage of G1 and G2, glycoprotein transport to the cell surface plasma membrane, formation of infectious virus particles, and pH-dependent glycoprotein-mediated cell fusion. As a component of the virion spikes, GPC, together with glycoprotein G2, forms trimers that are linked to the underlying matrix. It
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interacts with the host receptor and facilitates virus attachment to the primary receptor alpha-dystroglycan (DAG1) at the cell surface, leading to virion internalization through macropinocytosis. Subsequent to endocytosis, GPC undergoes a pH-dependent switch from binding to DAG1 to the host lysosomal receptor LAMP1, triggering the dissociation of GP1. This exposes the fusion subunit, GP2, facilitating the fusion process. Notably, GPC also down-modulates host DAG1, influencing the host-virus interaction dynamics.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA