

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived Gln780-His1134, with C-terminal 6-His tag Accession # P03314
N-terminal Sequence Analysis	Gln780 predicted and inferred from enzymatic pyroglutamate treatment revealing Gly781. Cys782 observed.
Predicted Molecular Mass	41 kDa

SPECIFICATIONS

SDS-PAGE	42-59 kDa, reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity not tested



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R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

BACKGROUND

Yellow fever virus (YFV) non-structural protein 1 (NS1) is produced by yellow fever virus (YFV), a mosquito-borne flavivirus that is responsible for numerous epidemics of yellow fever disease with high fatality rates (1). Flavivirus NS1 is a multifunctional virulence factor. The glycosylated NS1 exists as a membrane-associated dimer after translocation into the endoplasmic reticulum lumen, where it is essential for viral genome replication (2). The secreted hexamer NS1 is involved in immune evasion and pathogenesis; it is identified as a potential diagnostic marker for early detection of the virus infections (2). Mature viral YFV NS1 contains 352 amino acids (afa) and shares high structural similarity to other flavivirus NS1 proteins, such as DENV and ZIKV.

References:

1. Beasley, D.W. *et al.* (2015) Antiviral. Res. **115**:48.
2. Rastogi, M. *et al.* (2016) Virol. J. **13**:131.