Recombinant Monkeypox Virus Zaire-96-I-16 A30L Fc Chimera

Catalog Number: 11279-MX

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived monkeypox virus zaire-96-i-16 A30L protein

MD	Human IgG_1 (Pro100-Lys330)	IEGR	MPXV A30L (Gln22-Leu146) Accession # NP_536567.1

N-terminus C-terminus

N-terminal Sequence Analysis	Met
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	41 kDa

SPECIFICATIONS

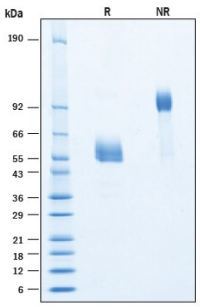
SDS-PAGE	52-60 kDa, under reducing conditions.
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 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

SDS-PAGE



Recombinant Monkeypox Virus Zaire-96-I-16 A30L Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Monkeypox Virus Zaire-96-I-16 A30L Fc Chimera Protein (Catalog # 11279-MX) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 52-60 kDa and 100-120 kDa, respectively.

BACKGROUND

Monkeypox Virus (MPXV), the virus that causes monkeypox infection in both humans and animals, is a double-stranded DNA virus that has had a recent global outbreak in 2022 (1). MPXV belongs to the Poxviridae family of viruses (2). It consists of several key subunits including a surface membrane fusion protein (A29L, ~14 kDa), two separate envelope proteins (A30L ,~14 kDa and H3L, ~32kDa), an envelope glycoprotein (A35R ~15 kDa), a receptor glycoprotein that mimics IFN-alpha/beta (B16, ~37kDa), a palmitoylated EEV membrane glycoprotein (C19L, ~35 kDa), a secreted IL-18 binding protein (D6L, ~14kDa), a cell surface-binding protein (E8L, ~32 kDa), a telomere binding protein (I1L, ~36kDa), and a subunit required for DNA packaging (L1R, 18 kDa) (2-3). The envelope protein A30L was reported to play a role in association of viral membrane with the dense viroplasm (4).

References:

1. Breman, J.G. *et al.* (1980) Bull World Health Organ. **58**:165.
2. Farahat, R.A. *et al.* (2022) Infez Med. **30**:372.
3. Schelkunov, S.N. *et al.* (2002) Virology **297**:172.
4. Szajner, P. *et al.* (2006) J. Virol. **80**:306.

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