Catalog # A3L-M5243



#### Synonym

A30L

## Source

Monkeypox virus (strain Zaire-96-I-16) A30L, His Tag(A3L-M5243) is expressed from human 293 cells (HEK293). It contains AA Ser 22 - Leu 146 (Accession # <u>Q8V4U9-1</u>).

Predicted N-terminus: His

# **Molecular Characterization**

A30L(Ser 22 - Leu 146) **Poly-his** Q8V4U9-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 16.0 kDa. The protein migrates as 25-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

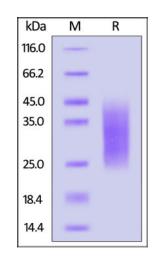
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

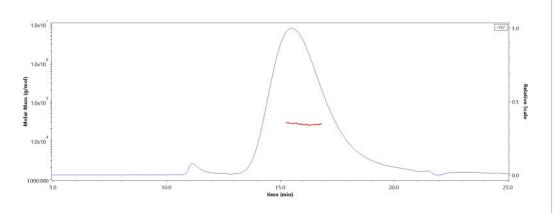
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Monkeypox virus (strain Zaire-96-I-16) A30L, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

# SEC-MALS



The purity of Monkeypox virus (strain Zaire-96-I-16) A30L, His Tag (Cat. No. A3L-M5243) is more than 90% and the molecular weight of this protein is around 20-30 kDa verified by SEC-MALS.



**Bioactivity-ELISA** 

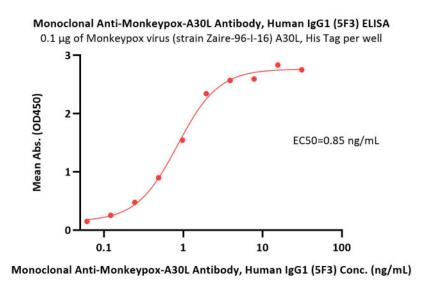






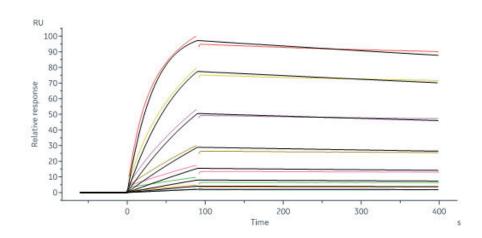


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Immobilized Monkeypox virus (strain Zaire-96-I-16) A30L, His Tag (Cat. No. A3L-M5243) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Monkeypox-A30L Antibody, Human IgG1 (5F3) with a linear range of 0.1-2 ng/mL (QC tested).

# **Bioactivity-SPR**



Monoclonal Anti-Monkeypox-A30L Antibody, Human IgG1 (5F3) captured on Protein A Chip can bind Monkeypox virus (strain Zaire-96-I-16) A30L, His Tag (Cat. No. A3L-M5243) with an affinity constant of 0.601 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

# Background

Monkeypox is a rare zoonosis caused by monkeypox virus, which has become the most serious orthoxvirus and consists of complex double stranded DNA. The cases are mostly in central and western Africa. The pathogenesis of monkeypox is that the virus invades the body from respiratory mucosa, multiplies in lymphocytes, and incurs into blood producing transient venereal toxemia. after the virus multiplies in cells, the cells can invade the blood and propagate to the skin of the whole body, causing lesions. A30L is a Envelope protein required for virus entry into host cell and for cell-cell fusion (syncytium formation).

## **Clinical and Translational Updates**



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