

Synonym

EGFRvIII

Source

Human EGFRvIII, His Tag(EGI-H52H4) is expressed from human 293 cells (HEK293). It contains AA Leu 25 - Ser 378 (Accession # [NP_001333870.1](#)).

Predicted N-terminus: Leu 25

Molecular Characterization

EGFRvIII(Leu 25 - Ser 378)
NP_001333870.1

Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 40.5 kDa. The protein migrates as 60-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm 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.

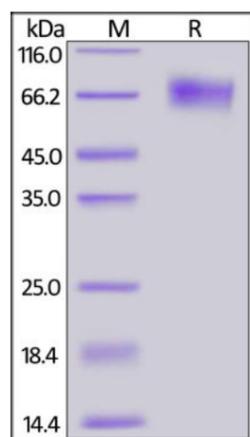
Storage

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

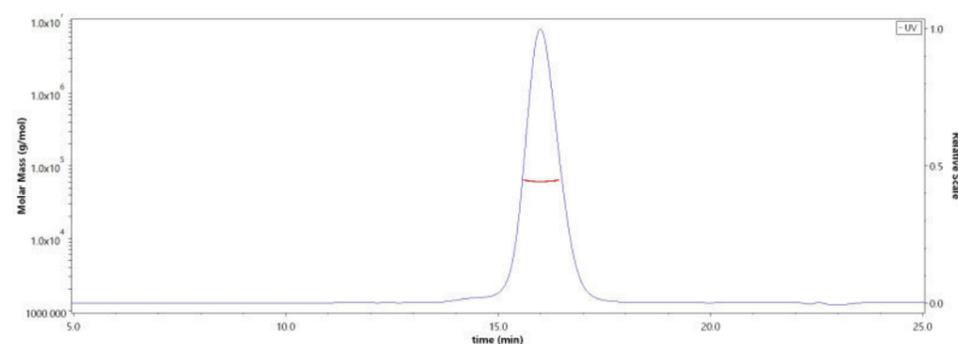
Please avoid repeated freeze-thaw cycles.

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.

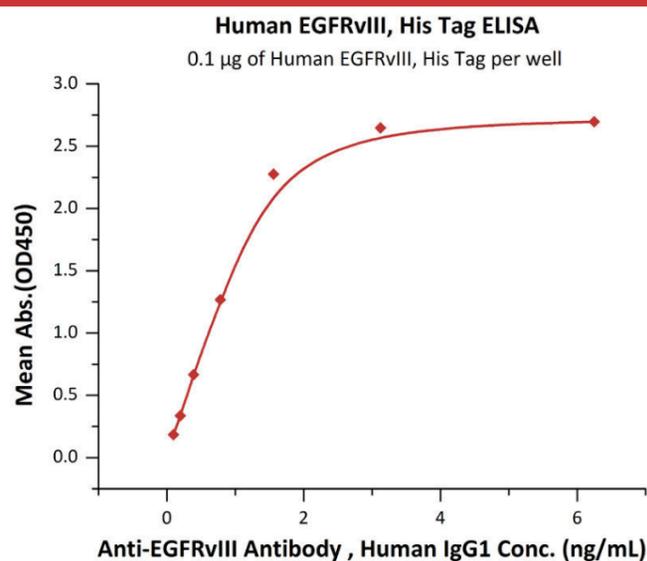
SDS-PAGE

Human EGFRvIII, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

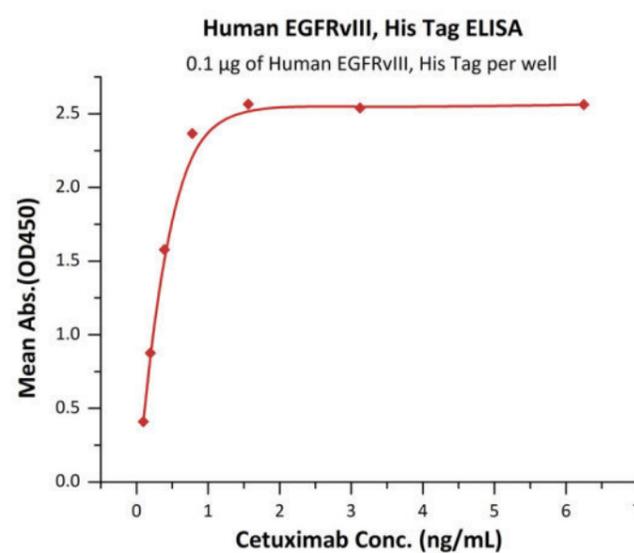
Bioactivity-ELISA**SEC-MALS**

The purity of Human EGFRvIII, His Tag (Cat. No. EGI-H52H4) is more than 90% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.

[Report](#)

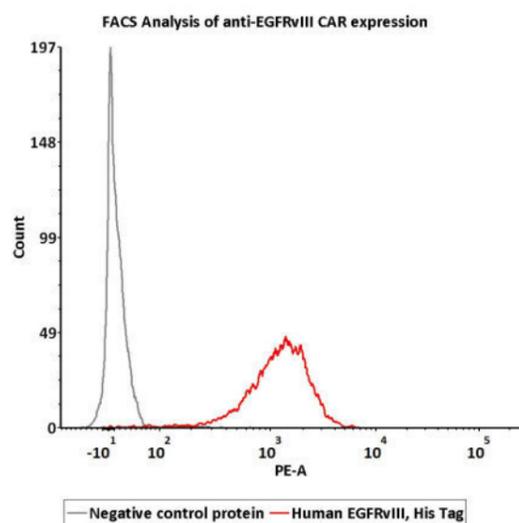


Immobilized Human EGFRvIII, His Tag (Cat. No. EGI-H52H4) at 1 µg/mL (100 µL/well) can bind Anti-EGFRvIII Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized Human EGFRvIII, His Tag (Cat. No. EGI-H52H4) at 1 µg/mL (100 µL/well) can bind Cetuximab with a linear range of 0.1-1 ng/mL (Routinely tested).

Bioactivity-FACS



2e5 of anti-EGFRvIII CAR-293 cells were stained with 100 µL of 3 µg/mL of Human EGFRvIII, His Tag (Cat. No. EGI-H52H4) and negative control protein respectively, washed and then followed by PE anti-His Tag antibody and analyzed with FACS (Routinely tested).

Background

The epidermal growth factor receptor (EGFR; ErbB-1; HER1 in humans) is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands. The epidermal growth factor receptor is a member of the ErbB family of receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3) and Her 4 (ErbB-4). Mutations affecting EGFR expression or activity could result in cancer.

The type III EGF deletion mutant receptor (EGFRvIII) is the most common mutation and was first identified in primary human glioblastoma tumors. This tumor-specific antigen is ligand-independent, contains a constitutively active tyrosine kinase domain, and has been shown to be present in a number of human malignancies. EGFRvIII has been selected as a target for CAR-modified T-cell studies in recent years.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.