

**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
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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. Normally trehalose is added as protectant before lyophilization.

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.*

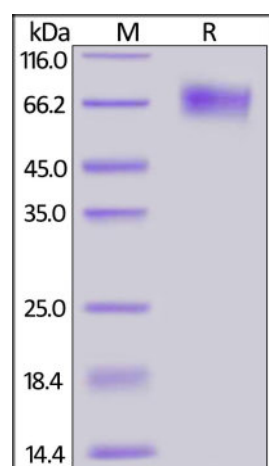
**Storage**

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

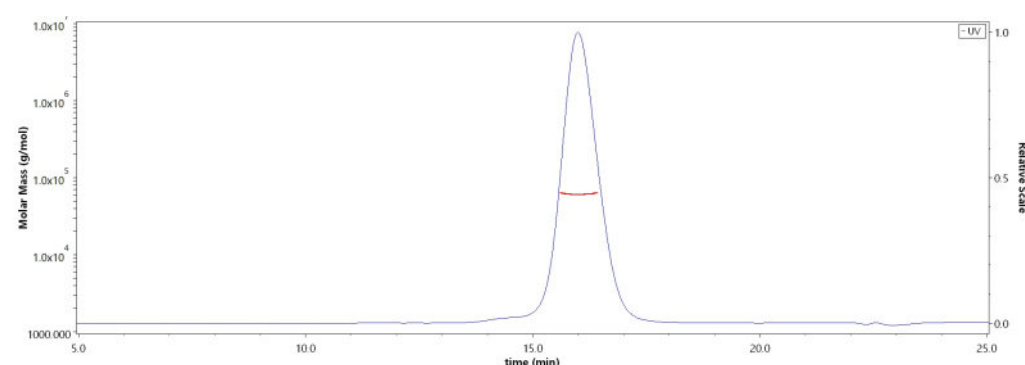
*Please avoid repeated freeze-thaw cycles.*

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.

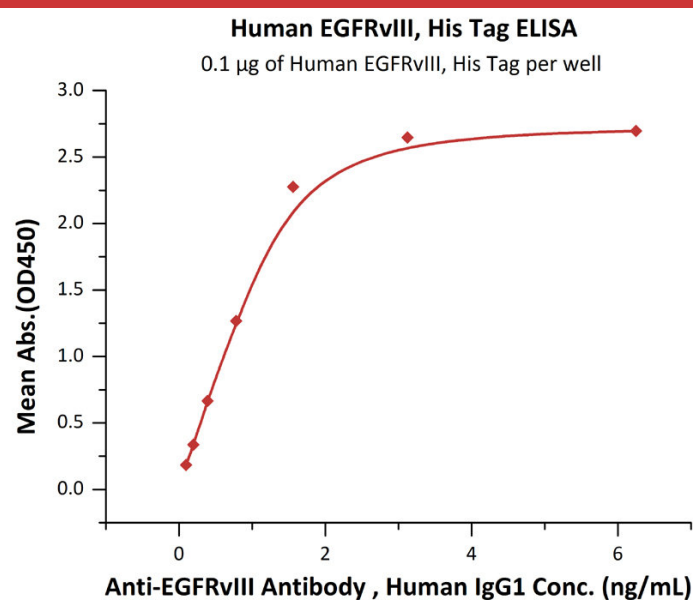
**SDS-PAGE**

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**

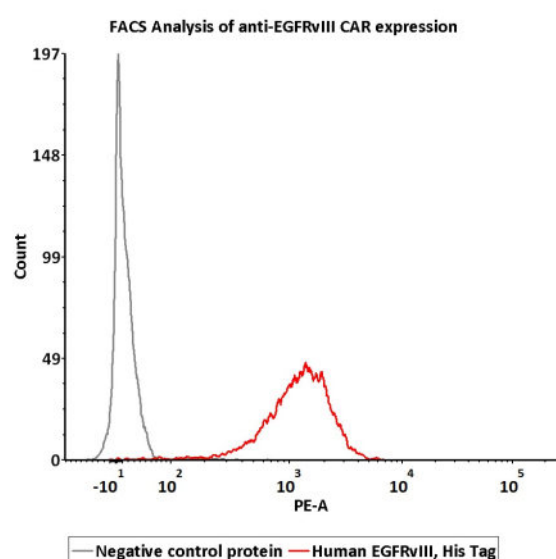
The purity of Human EGFRvIII, His Tag (Cat. No. EGI-H52H4) was more than 90% and the molecular weight of this protein is around 60-75 kDa verified by SEC-MALS.

[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).

### 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; EGFR gene amplification is correlated with the structural rearrangement of the gene. The EGFRvIII gene has an in-frame deletion of 801 base pairs, corresponding to exons 2–7 in the mRNA, resulting in the deletion of amino acids 30–297 in the extracellular domain and the generation of a glycine at the fusion point

### References

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.