

PE-Labeled Human EGFRvIII Protein, His Tag (Site-specific conjugation)

Catalog # EGI-HP2E3



Synonym

EGFRvIII

Source

PE-Labeled Human EGFRvIII, His Tag (EGI-HP2E3) is produced via site-specific conjugation of PE to Human EGFRvIII, His Tag under optimal conditions with a proprietary technology. Human EGFRvIII, His Tag 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 42.2 kDa.

Conjugate

PE
Excitation Wavelength: 488 nm / 561 nm
Emission Wavelength: 575 nm

Application

Please note that this product is NOT compatible to streptavidin detection system.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5% BSA, pH7.4 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

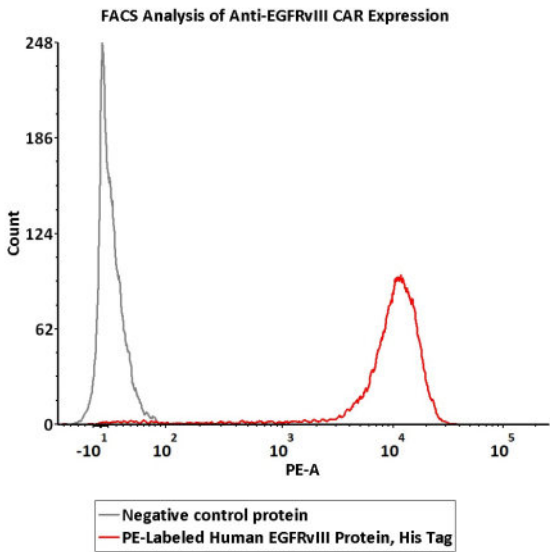
Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

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

Bioactivity-FACS



5e5 of anti-EGFRvIII CAR-293 cells were stained with 100 μL of 1:50 dilution (2 μL stock solution in 100 μL FACS buffer) of PE-Labeled Human EGFRvIII Protein, His Tag (Cat. No. EGI-HP2E3) and negative control protein respectively. PE signal was used to evaluate the binding activity (QC 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.

