



Synonym

ERBB2,CD340,HER-2,neu,HER2,MLN19,NEU,NGL,TKR1

Source

FITC-Labeled Human Her2, His Tag (HE2-HF224) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Thr 652 (Accession # [P04626-1](#)). It is the FITC labeled form of Human Her2, His Tag (HE2-H5225).  
Predicted N-terminus: Thr 23

Molecular Characterization

Her2(Thr 23 - Thr 652)  
P04626-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.  
The protein has a calculated MW of 70.2 kDa. The protein migrates as 80-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC  
Excitation source: 488 nm spectral line, argon-ion laser  
Excitation Wavelength: 488 nm  
Emission Wavelength: 535 nm

Labeling

*The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.*

Protein Ratio

The FITC to protein molar ratio is 1.5-2.5.

Purity

>90% as determined by SDS-PAGE.

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

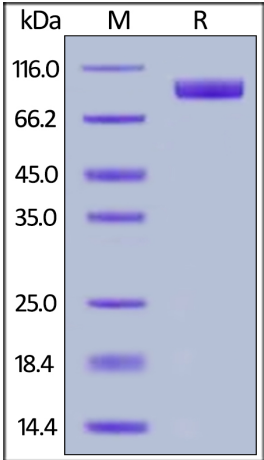
Please see Certificate of Analysis for specific instructions.  
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

Storage

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

SDS-PAGE

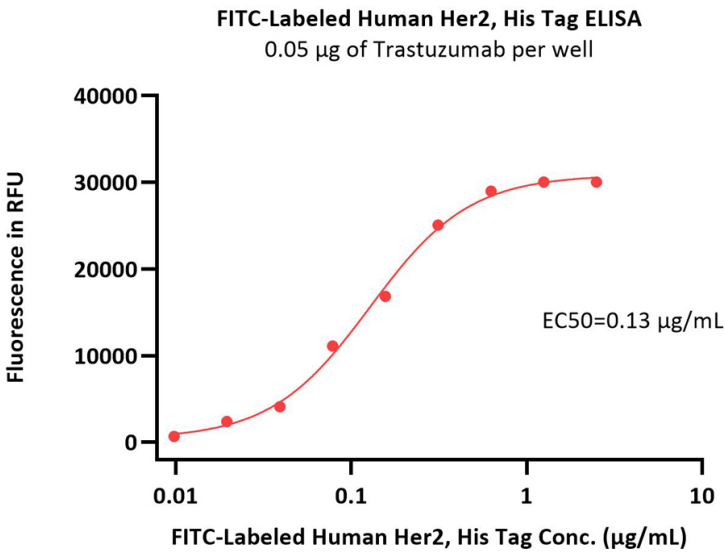


FITC-Labeled Human Her2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein



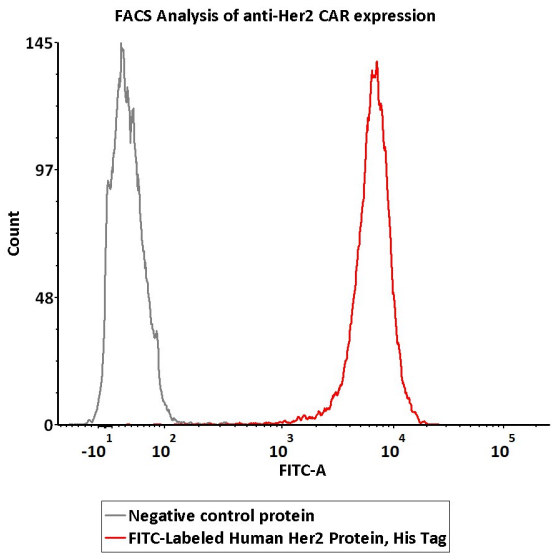
is greater than 90%.

Bioactivity-ELISA



Immobilized Trastuzumab at 0.5 µg/mL (100 µL/well) can bind FITC-Labeled Human Her2, His Tag (Cat. No. HE2-HF224) with a linear range of 0.02-0.313 µg/mL (QC tested).

Bioactivity-FACS



2e5 of Anti-Her2 CAR-293 were stained with 100 µL of 1 µg/mL of FITC-Labeled Human Her2, His Tag (Cat. No. HE2-HF224) and negative control protein respectively, FITC signal was used to evaluate the binding activity (QC tested).

Background

Human Epidermal growth factor Receptor 2 (HER2) is also called ERBB2, HER-2,HER-2 /neu, NEU, NGL,TKR1 and c-erb B2,and is a protein giving higher aggressiveness in breast cancers. It is a member of the ErbB protein family, more commonly known as the epidermal growth factor receptor family. HER2 is a cell membrane surface-bound receptor tyrosine kinase and is normally involved in the signal transduction pathways leading to cell growth and differentiation. HER2 is thought to be an orphan receptor, with none of the EGF family of ligands able to activate it. Approximately 30% of breast cancers have an amplification of the HER2 gene or overexpression of its protein product. Overexpression of this receptor in breast cancer is associated with increased disease recurrence and worse prognosis. HER2 appears to play roles in development, cancer, communication at the neuromuscular junction and regulation of cell growth and differentiation .

