



**Synonym**

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

**Source**

Alexa Fluor 488-Labeled Human Her2, His Tag (HE2-HA2H3) is produced via conjugation of AF488 to Human Her2, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human Her2, His Tag is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Thr 652 (Accession # [P04626-1](#)).

Predicted N-terminus: Thr 23

**Molecular Characterization**



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

The protein has a calculated MW of 83.9 kDa.

**Conjugate**

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% 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.

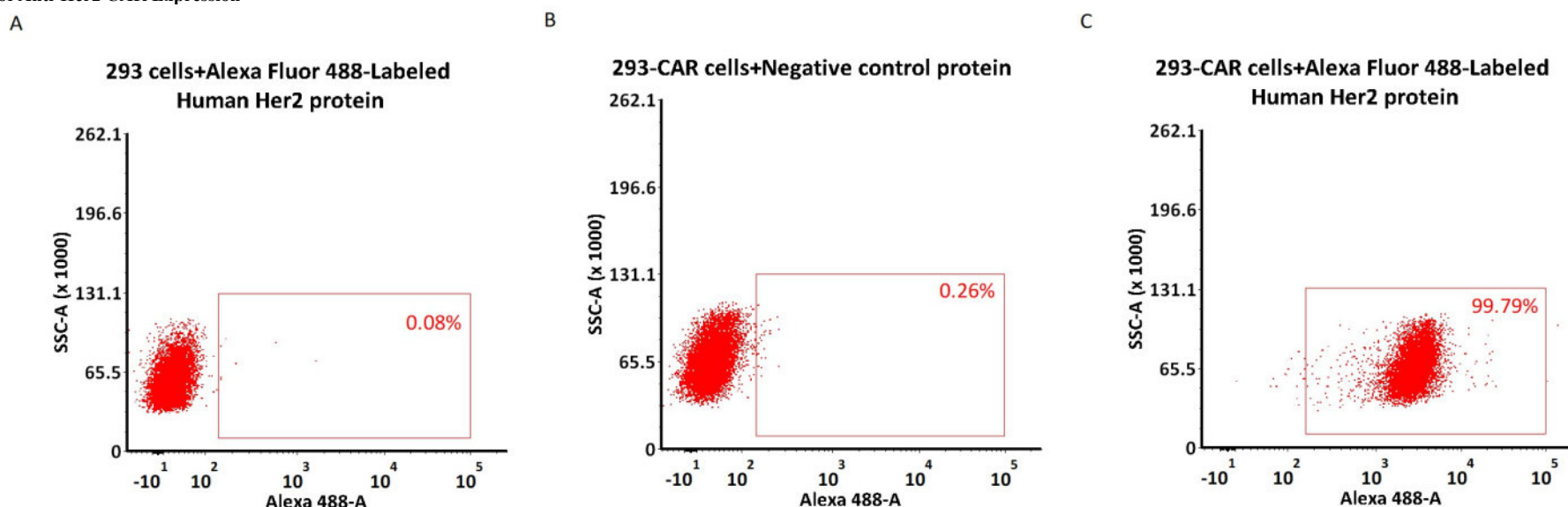
*Please protect from light and avoid repeated freeze-thaw cycles.*

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.

**Evaluation of CAR expression**

FACS Analysis of Anti-Her2 CAR Expression

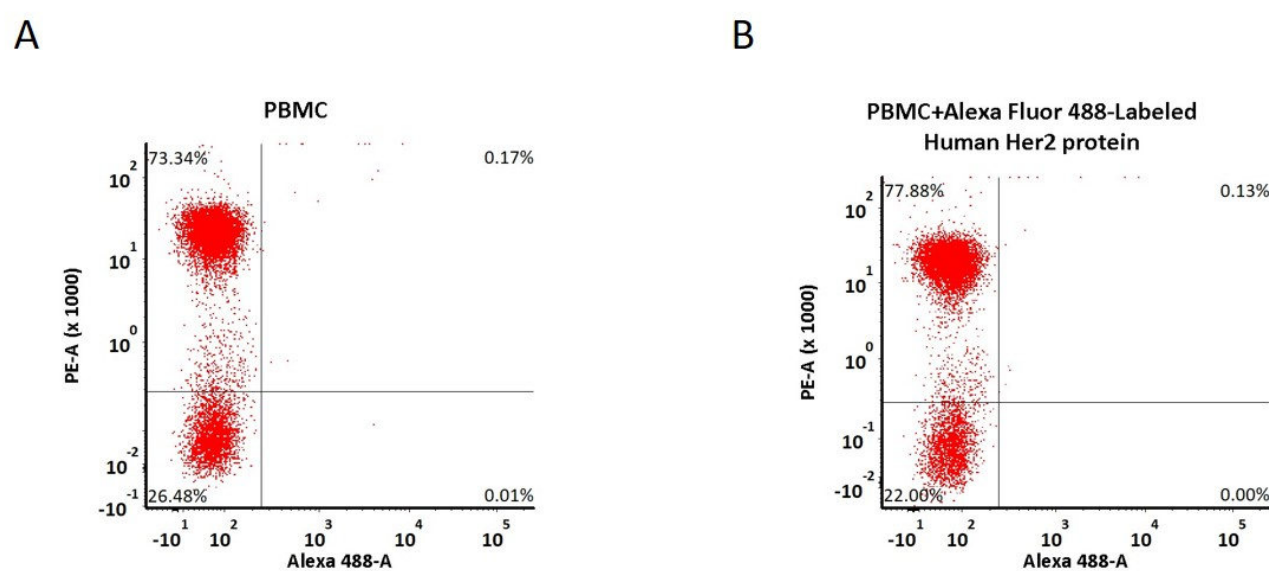


5e5 of anti-Her2 CAR-293 cells were stained with 100 µL of 3 µg/mL of Alexa Fluor 488-Labeled Human Her2, His Tag (Cat. No. HE2-HA2H3) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). Alexa Fluor 488 signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs

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5e5 of PBMCs were stained with Alexa Fluor 488-Labeled Human Her2, His Tag(Cat. No. HE2-HA2H3) and anti-CD3 antibody, washed and then analyzed with FACS. PE signal was used to evaluate the expression of CD3+ T cells in PBMCs, and Alexa Fluor 488 signal was used to evaluate the non-specific binding activity to PBMCs (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 .

### Clinical and Translational Updates

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

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