

# Recombinant Human ERBB2 Protein, hFc-tagged, Alexa Fluor 488 conjugated

**Cat. No.** ERBB2-40HAF488    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant Human ERBB2 Protein (23-450aa), was expressed in human 293 cells (HEK293) with C-terminal human IgG1 Fc tag and Alexa Fluor 488 conjugate.

### Species

Human

### Source

HEK293

### ProteinLength

23-450 aa

### Description

Human Epidermal growth factor Receptor 2 (HER2), 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.

### Form

Lyophilized

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 45-1 Ramsey Road, Shirley, NY 11967, USA

|                                     |  |
|-------------------------------------|--|
| <b>Molecular Mass</b>               | The protein has a calculated MW of 74.5 kDa. The reducing (R) protein migrates as 95-100 kDa in SDS-PAGE due to glycosylation.   |
| <b>N-terminal Sequence Analysis</b> | The predicted N-terminus is Thr 23.  |
| <b>Endotoxin</b>                    | < 1.0 EU/ µg by the LAL method.  |
| <b>Purity</b>                       | > 95 % as determined by SDS-PAGE   |
| <b>Characteristic</b>               | Disulfide-linked homodimer<br>Labeled with Alexa Fluor 488 via amines<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm  |
| <b>Storage</b>                      | For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.<br>Please avoid repeated freeze-thaw cycles.<br>This product is stable after storage at:<br>-20 to -70 centigrade for 12 months in lyophilized state;<br>-70 centigrade for 3 months under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.  |
| <b>Reconstitution</b>               | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.   |
| <b>Conjugation</b>                  | Alexa Fluor 488  |

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## GENE INFORMATION

**Gene Name** ERBB2

**Official Symbol** ERBB2

**Synonyms** ERBB2; v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian); NGL, v erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); receptor tyrosine-protein kinase erbB-2; CD340; HER 2; HER2; NEU; herstatin; p185erbB2; proto-oncogene Neu; c-erb B2/neu protein; proto-oncogene c-ErbB-2; metastatic lymph node gene 19 protein; tyrosine kinase-type cell surface receptor HER2; neuroblastoma/glioblastoma derived oncogene homolog; v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); NGL; TKR1; HER-2; MLN 19; HER-2/neu

**Gene ID** 2064

**mRNA Refseq** NM\_001005862

**Protein Refseq** NP\_001005862

**MIM** 164870

**UniProt ID** P04626

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