

Recombinant Rat Erbb2 Protein, Tag Free

Cat. No. Erbb2-11096R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Rat Her2 Protein, Tag Free is expressed from human 293 cells (HEK293). It contains AA Thr 26 - Thr 656 (Accession # AAH61863.1). This protein carries no "tag". Predicted N-terminus: Thr 26
Species	Rat
Source	HEK293
ProteinLength	26-656 aa
Description	Human Epidermal Growth Factor Receptor 2 (HER2), also known as ErbB-2, is a cell membrane-bound receptor tyrosine kinase of the EGFR/ErbB family, encoded by the ERBB2 gene. It is crucial for cell growth and differentiation signaling. Uniquely, HER2 is an orphan receptor lacking a direct ligand, but forms highly active heterodimers with other ligand-bound ErbB family members, significantly amplifying oncogenic signals. Aberrant amplification or overexpression of the HER2/neu proto-oncogene is a key oncogenic driver. In breast cancer, approximately 25-30% of patients exhibit HER2 overexpression, leading to a more aggressive disease phenotype with faster growth, increased metastasis, and often reduced chemotherapy sensitivity. This correlates with poorer prognosis and makes HER2 a critical prognostic, predictive biomarker, and a major therapeutic target.
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Molecular Mass	The protein has a calculated MW of 69.7 kDa. The protein migrates as 70 kDa and

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	80-95 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/μg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE. >90% as determined by SEC-MALS.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	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.

GENE INFORMATION

Gene Name	ErbB2 v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian) [<i>Rattus norvegicus</i>]
Official Symbol	ERBB2
Synonyms	ERBB2; v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian); receptor tyrosine-protein kinase erbB-2; p185neu; C-erbB-2; p185erbB2; NEU proto-oncogene; proto-oncogene NEU; proto-oncogene c-ErbB-2; epidermal growth factor receptor-related protein; Avian erythroblastosis viral (v-erb-B2) oncogene homologue 2 (neuro/glioblastoma derived oncogene homolog);
Gene ID	24337

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mRNA Refseq	NM_017003
Protein Refseq	NP_058699
UniProt ID	Q8K3F9

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