

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human ErbB2/Her2 protein			
	Human ErbB2/Her2 (Ser22-Thr652) Accession # P04626-1	IEGRMD	Human IgG ₁ (Pro100-Lys330)	Avi-tag
	N-terminus		C-terminus	
N-terminal Sequence Analysis	Ser22 & Thr23			
Structure / Form	Disulfide-linked homodimer, biotinylated via Avi-tag			
Predicted Molecular Mass	98 kDa			

SPECIFICATIONS

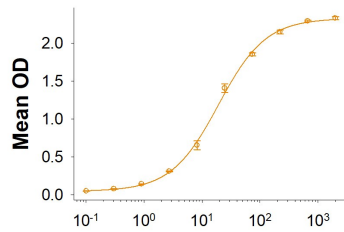
SDS-PAGE	120-138 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Human ErbB2/Her2 (Trastuzumab) Antibody (Catalog # MAB9589) is immobilized at 0.5 µg/mL (100 µL/well), Biotinylated Recombinant Human ErbB2/Her2 Fc Chimera Avi-tag binds with an ED ₅₀ of 10-60 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

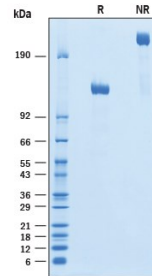
Binding Activity



Biotinylated Recombinant Human ErbB2/Her2 Fc Chimera Avi-tag (ng/mL)

When Human ErbB2/Her2 (Trastuzumab) Antibody (Catalog # [MAB9589](#)) is immobilized at 0.5 µg/mL (100 µL/well), Biotinylated Recombinant Human ErbB2/Her2 Fc Chimera Avi-tag (Catalog # AV11129) binds with an ED₅₀ of 10-60 ng/mL.

SDS-PAGE



2 µg/lane of Biotinylated Recombinant Human ErbB2/Her2 Fc Chimera Avi-tag (Catalog # AV11129) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® blue staining, showing bands at 120-138 kDa and 240-280 kDa, respectively.

BACKGROUND

ErbB2, also called Neu and Her2 (human epidermal growth factor receptor 2), is a type I membrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factor (EGF) family of growth factors. ErbB2 is widely expressed in epithelial cells and has also been found to be over-expressed in a large number of breast carcinomas. Among ErbB family members, ErbB2 is unique in that it has no identified ligands. Rather, ErbB2 heterodimerizes with the other members of the ErbB family (ErbB1 (EGFR), ErbB3, ErbB4) to form higher affinity signaling complexes. Because ErbB3 contains a defective kinase domain, the kinase domain of ErbB2 is responsible for initiating the tyrosine phosphorylation signal through the heterodimeric receptor. It has been found that a discrete three amino acid signal in the ErbB3 cytoplasmic domain is critical for transactivation of ErbB2. Interestingly, this same three amino acid signal has also been found in ErbB1 and ErbB4. Phosphoinositide 3-kinase has been shown to play a role in ErbB2 signal transduction. The cytoplasmic domain of ErbB2 has been shown to associate with beta-catenin and plakoglobin. Human ErbB2 consists of 1255 amino acids (aa) with a 21 aa signal sequence, a 631 aa extracellular domain, a 23 aa transmembrane region, and a 580 aa cytoplasmic domain. ErbB2 can be shed from the cell surface by proteolytic cleavage by an unidentified protease. ErbB2 appears to play roles in development, cancer, communication at the neuromuscular junction and regulation of cell growth and differentiation (1-10).

References:

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