Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag

Catalog Number: AVI11356

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived human ErbB2/Her2 protein

N-terminal Sequence Analysis	Thr23
Predicted Molecular Mass	73 kDa

SPECIFICATIONS

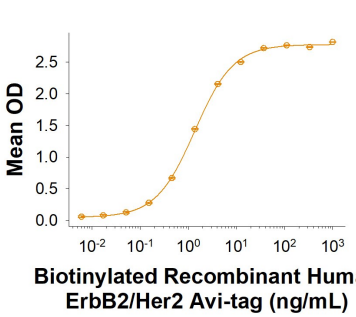
SDS-PAGE	92-112 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Human ErbB2/Her2 (Research Grade Trastuzumab Biosimilar) Antibody (Catalog # MAB9589) is immobilized at 0.5 µg/mL (100 µL/well), Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag (Catalog # AVI11356) binds with an ED_{50} of 0.500-6.00 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 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 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.

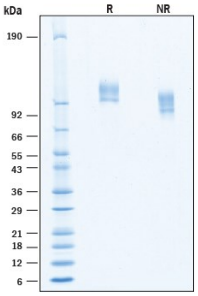
DATA

Binding Activity



Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag Protein Binding Activity. When Human ErbB2/Her2 (Research Grade Trastuzumab Biosimilar) Antibody (Catalog # MAB9589) is immobilized at 0.5 µg/mL (100 µL/well), Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag Protein (Catalog # AVI11356) binds with an ED_{50} of 0.500-6.00 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human ErbB2/Her2 Avi-tag His-tag Protein (Catalog # AVI11356) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 92-112 kDa.

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BACKGROUND

ErbB2, also called Neu and Her2 (human epidermal growth factor receptor 2), is a type I transmembrane glycoprotein member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factors. It is widely expressed in epithelial cells and has also been found to be over-expressed in a large number of breast carcinomas. Among the 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. Human ErbB2 consists of 1255 amino acids (aa) including a 22 aa signal sequence, a 630 aa extracellular domain (ECD), a 23 aa transmembrane region, and a 580 aa cytoplasmic domain. Within the ECD, human ErbB2 shares and 86% aa sequence identity with mouse and rat ErbB2. 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. ErbB2 appears to play roles in development, cancer, communication at the neuromuscular junction and regulation of cell growth and differentiation (1-10). Our Avi-tag Biotinylated human ErbB2/Her2 His-tag protein features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

References:

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