InnoCyto Inc.
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

Technical Data Sheet

Biotinylated Human HER2 Protein (C-His-Avi)

Catalog Number: 804103, 804104
Size: 25 ug, 100 ug
Target Name: HER2, HER-2, ERBB2, CD340, neu, MLN19, NEU, NGL, TKR1
Regulatory Status: RUO

Product Details

Application: ELISA, BLI
Format: Liquid, Biotinylated
Expression Host: CHO
Species: Human
Sources: Recombinant Human Her2 protein (Thr23-Thr652) with C-terminus His-Avi tag is expressed in CHO cells. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number: P04626
Molecular Weight: The protein has a predicted molecular weight of 73 kDa. Under DTT-reducing conditions, it migrates at approximately 85 kDa on SDS-PAGE.
Affinity Tag: C-His-Avi
Purity: >95% based on SDS-PAGE under reducing condition
Formulation: 1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level: Not tested
Protein Concentration: 25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at <= –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

Background Information

ErbB2, also known as HER2, is a receptor tyrosine kinase that belongs to the ErbB family, which includes EGFR, ErbB2, ErbB3, and ErbB4. It plays a critical role in regulating cell growth, differentiation, and survival. Unlike other members of the ErbB family, ErbB2 does not have a ligand-binding domain. However, it can form homodimers or heterodimers with other ErbB receptors after they bind their respective ligands, leading to activation of downstream signaling pathways. ErbB2 gene amplification and protein overexpression are observed in approximately 20% of invasive breast cancers, contributing to increased aggressiveness and poor prognosis. ErbB2 is also overexpressed in other cancers, including gastric, salivary, and colorectal cancers. Trastuzumab (Herceptin), a humanized monoclonal antibody targeting ErbB2, is used in the treatment of HER2-positive breast and gastric cancers.

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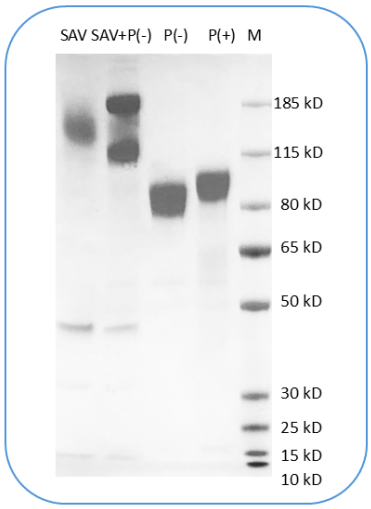
Product Data



Human Her2 protein (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and non-reducing (P–) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the Her2 protein exceeds 95%.