HER2, Fc Fusion, Avi-Tag Recombinant

Catalog: 102196
Lot: 240514

Product Information

Description:	Recombinant human HER2 (human epidermal growth factor receptor 2), encompassing amino acids 23-652 that correspond to the extracellular portion of the protein. This construct has a human IgG1 Fc domain at the C-terminus, followed by an Avi-Tag™. This protein was affinity purified.
Background:	HER2 (human epidermal growth factor receptor 2), also known as erbB-2 or CD340, is a tyrosine kinase transmembrane receptor of the EFGR family of proteins. There is no known ligand, but it can form homodimers or heterodimers with other HER proteins. Once active, it activates the MAPK (mitogen-activated protein kinase) and PI3K (phosphatidylinositol-3 kinase) signaling pathways resulting in cell cycle progression and cell proliferation. HER2 over-expression is known to occur in breast, ovarian, stomach, lung adenocarcinoma, aggressive forms of uterine cancer, and gastric cancer. In 1990 the FDA approved the use of the monoclonal antibody trastuzumab in breast and stomach cancer. Other approved strategies to target HER2 include ADCs (antibody-drug conjugate) and margetuximab (anti-HER2 antibody that can induce cytotoxicity). The use of small molecule tyrosine kinase inhibitors, alone or in combinatory therapy, has shown great promise in the treatment of $HER2^+$ breast cancer (BC). However, resistance to treatment, for instance by mutations on HER2 or upregulation of other HER receptors, has been described. Neratinib, a pan-HER2 inhibitor, was approved in 2017 for early-stage BC, as adjuvant anti-HER2 therapy after trastuzumab treatment. However, side effects limit its use. The development of treatments able to target early-stage cancer, with minimal side effects and resistance development, will bring major benefits to $HER2^+$ oncology patients.
Species:	Human
Construct:	HER2 (23-652-Fc(IgG1)-Avi)
Concentration:	0.51 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	98 kDa + glycans
Glycosylation:	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
Genbank Accession:	NM_004448.4
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Applications:	Useful for SDS-PAGE.

HER2, Fc Fusion, Avi-Tag Recombinant

Catalog: 102196
Lot: 240514

Quality Control Data

4-20% SDS-PAGE Coomassie Staining