

Human HER-2 (Trastuzumab) Antibody

Biotin

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.: LT1501

Clone: 4D5-8

Isotype: AB_2893911

RRID: Human IgG1κ

Storage: Sterile 2° to 8°C

Product Description

Specificity:

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Trastuzumab. Clone 4D5-8 recognizes human erbB-2. This product is for research use only.

Antigen Distribution:

Ubiquitous expression with highest expression levels found in the kidney, skin, esophagus, and small intestine.

Background:

Trastuzumab is a monoclonal antibody targeting HER2, a 185 kDa transmembrane glycoprotein that contains an extracellular domain and intracellular tyrosine kinase activity. When it is functioning normally, the HER2 pathway supports cell growth and division. On the other hand, the over expression of HER2 propels cell growth beyond its typical range. This overexpression is associated with some cancers, namely breast and stomach, in which the HER2 protein can be expressed up to 100 times more than in typical cells. Trastuzumab induces an immune-mediated response that triggers the internalization and downregulation of HER2 making it an excellent target for immunotherapy. Several clinical studies are under way which show that anti-HER-2/neu antibodies inhibit the growth and proliferation of these tumor cells *In vitro* as well as *In vivo*.

Known Reactivity Species:

Human

Expression Host:

HEK-293 Cells

Format:

Biotin

Immunogen:

Human epidermoid carcinoma cells (A431) over-expressing EGFR.

Formulation

This Biotinylated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

Storage and Stability

This biotinylated antibody is stable when stored at 2-8°C.

Do not freeze.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for Trastuzumab biosimilar antibody for staining cells in flow cytometry is $\leq 1.0 \mu\text{g}$ per 10^6 cells in a volume of $100 \mu\text{l}$. Titration of the reagent is recommended for optimal performance for each application.

ELISA

Country of Origin

USA

References

- 1) Fendly, B. et al. (1990) Cancer Research 50: 1550-1558.
- 2) McBride, H. et al. (2019) Pharm Res. 36(12): 177.
- 3) Zielinski, C. et al. (1997) Int. J. Cancer 73: 875–879
- 4) Valone, FH. et al. (1995) J. Clin. Oncology 13 (9): 2281-92.
- 5) Hynes, NE. et al. (1993) Br J Cancer. 68(6): 1140–1145.