

Product Data Sheet

anti-human Receptor tyrosine-protein kinase ErbB-3 monoclonal antibody

Product information

Catalog Number:	GM-1003
Clone:	DY-7G2
Description:	purified monoclonal mouse antibody
Specificity:	anti-human Receptor tyrosine-protein kinase ErbB-3 (Her3)
Isotype:	IgG1
Purification:	Protein G
Storage:	short term: 2°C - 8°C; long term: -20°C (avoid repeated freezing and thawing)
Buffer :	phosphate buffered saline, pH 7.2
Immunogen:	genetic immunisation with cDNA encoding human ErbB-3
Selection:	based on recognition of the complete native protein expressed on transfected mammalian cells

Working dilutions

Flow cytometry:	1.2 µg/10 ⁶ cells
CELISA:	1:200 - 1:400

For each application a titration should be performed to determine the optimal concentration.

Specificity testing by flow cytometry

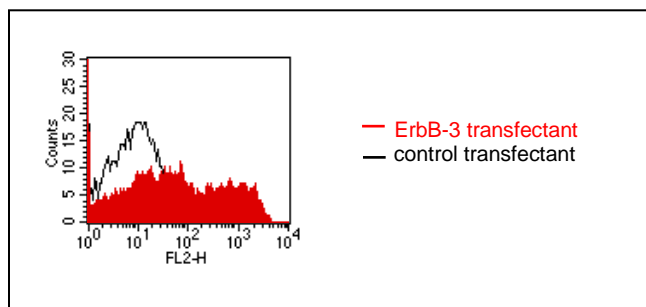


Fig.1: FACS analysis of BOSC23 cells using DY-7G2 Cat.# GM-1003. BOSC23 cells were transiently transfected with an expression vector encoding either ErbB-3 (red curve) or an irrelevant protein (control transfectant: black curve). Binding of DY-7G2 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with ErbB-3 transfected cells.

For research use only. Not for diagnostic or therapeutic use.

CGE analysis of DY-7G2

The antibody was purified by protein G affinity chromatography from cell culture supernatants and verified by CGE (Fig.2).

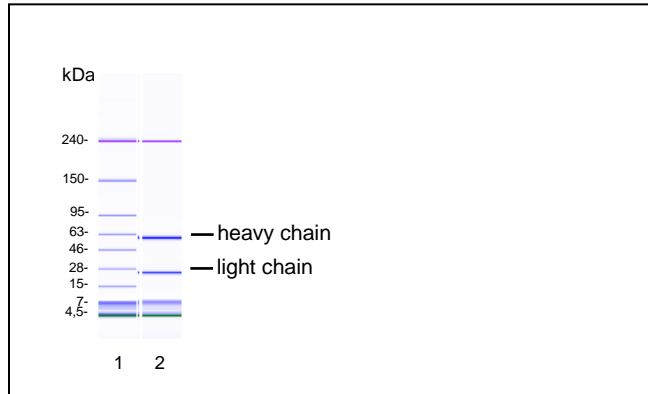


Fig.2: CGE analysis of purified DY-7G2 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified DY-7G2 antibody. Proteins were separated by CGE (capillary gel electrophoresis, Agilent 2100 Bioanalyzer). Internal control bands (240 kDa / 7 kDa / 4,5 kDa).

Background

ErbB-3 belongs to the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. ErbB receptors (EGFR (ErbB1), ErbB2, ErbB3, and ErbB4) are important regulators of normal growth and differentiation, and they are involved in the pathogenesis of cancer. The 148-kDa trans-membrane polypeptide ErbB-3 has a neuregulin binding domain but not an active kinase domain. Heterodimerisation with EGF receptor family members which possess kinase activity leads to the activation of pathways which indicate cell proliferation or differentiation (1). Over-expression of ErbB-3 has been reported in numerous cancers, including prostate, bladder and breast tumours (2).

References

1. **Kraus MH, Issing W, Miki T, Popescu NC, Aaronson SA** (1989). Isolation and characterization of ERBB3, a third member of the ERBB/epidermal growth factor receptor family: evidence for overexpression in a subset of human mammary tumors. *Proc Natl Acad Sci USA*, 86(23):9193-7
2. **Gullick WJ** (1996). The c-erbB3/HER3 receptor in human cancer. *Cancer Surv* 27:339-49.