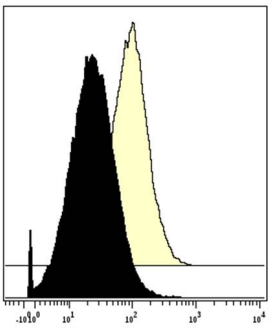
Anti-Human ErbB2-174Yb

Catalog: 3174021B
Package Size: 100 tests
Storage: Store product at 4°C. Do not freeze.
Reactivity: Human
Clone: 42/c-erbB-2
Isotype: Mouse IgG2b
Formulation: Antibody stabilizer with 0.05% Sodium Azide

Technical Information

Validation: Each lot of conjugated antibody is quality control tested by CyTOF® analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended Usage: The suggested use is 1 µl for up to 3 X 10^6 live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human MCF7 cells (top) and human Jurkat cells (bottom) were fixed, permeabilized, and stained with 174Yb-anti-ErbB2 (42/c-erbB-2). Total viable cells are displayed in analysis.

Description

ErbB2 (also known as HER2/Neu) is the most potent oncogene among the epidermal growth factor receptor family. Although ErbB2 does not bind a ligand, it is constantly prone to dimerization and recruits the largest group of phosphotyrosine-binding proteins among all ERBB members. The ErbB2 gene is located on chromosome 17 (C17) and is amplified and overexpressed in about 20-30% of cases of primary human breast cancer, correlating with adverse patient outcome. ErbB2 overexpression impacts on various cancer cell-associated phenotypes including resistance to apoptosis, hyperproliferation, increased motility and constitutive activation of the PI3K/AKT pathway. Moreover, ErbB2- containing heterodimers are the most potent ErbB complexes as they show higher growth factor affinities, undergo slow endocytosis and are constantly re-cycled to the cell membrane. On the other hand, ErbB2 function has also been implicated in physiological processes such as heart or oligodendrocyte development.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly Multiparametric Analysis by Mass Cytometry. *J Immunol Methods* 361 (1-2):1-20, 2010.

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