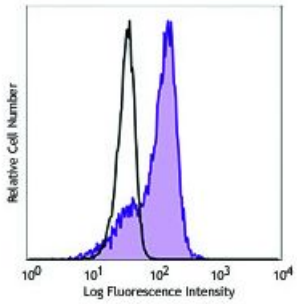
SONY

Product Data Sheet

PE/Cyanine7 anti-human CD340 (erbB2/HER-2)

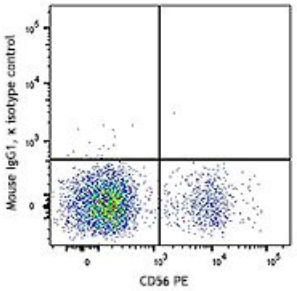
Catalog # / Size:	2222070 / 100 tests 2222065 / 25 tests
Clone:	24D2
Isotype:	Mouse IgG1, κ
Immunogen:	NIH-3T3 transfected with human HER-2
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	750 under optimal conditions.
Concentration:	Lot-specific



Human breast cancer cell line (MCF-7) was stained with CD340 PE/Cy7 (clone 24D2) (filled histogram) or mouse IgG1, κPE/Cy7 (open histogram).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



Application References:

1. Bühring HJ, *et al.* 1995. *Blood* 86:1916.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

Description: CD340 is also known as HER2/erbB2, tyrosine kinase cell surface receptor HER2, oncogene ERBB2, and oncogene NGL, neuroblastoma- or glioblastoma-derived. It is a member of the epidermal growth factor receptor family of cell membrane tyrosine kinases containing a single transmembrane domain and has an approximate molecular weight of 185 kD. CD340 contains three furin repeats and two cheY homologous receiver domains in the extracellular region (ECR). The HER2/erbB2 protein is expressed on many tumor cells, including some breast cancers, lung adenocarcinoma, gastric cancer, ovarian cancer, gliblastoma, some c-ALL blasts and bone marrow mesenchymal stem cells. Although the erbB2/HER2 protein contains no ligand binding domain, this protein interacts with other EGF receptor family members to form a heterodimer, stabilize ligand binding, and enhance kinase-mediated downstream signaling. CD340 has been shown to be involved in embryonic development and cancer progression; this protein is amplified in adenocarcinoma of the lung, some breast cancers, glioblastoma, gastric cancer, and ovarian carcinoma, where it functions as an oncogene. Overexpression of erbB2 in breast cancers has been shown to confer Taxol resistance and is a therapeutic target in a number of human cancers. The erbB2/HER-2 protein has been shown to interact with a large number of proteins, including SHC1, EGF receptorm, neuroregulin 1, c-Src, integrin β4, Grb2, Grb7, SOS1, caveolin 1, JAK2, PAK1, FAK, and β-catenin, among others. CD340 is extensively modified by tyrosine phosphoryation on multiple residues (Y1023, Y1139, Y1196, Y1221, Y1222, Y1248).

Antigen References:

1. Akiyama T, *et al.* 1986. *Science* 232:1644.
2. Bargmann CI, *et al.* 1986. *Nature* 319:226.
3. Pegram MD, *et al.* 1997. *Oncogene* 15:537.
4. Slamon DJ, *et al.* 1989. *Science* 244:707.
5. Leone F, *et al.* 2003. *J. Leukocyte Biol.* 74:593.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.