

Alexa Fluor® 488 anti-CD340 (ErbB2/HER-2) Antibody

Catalog# / Size	639957 / 25 µg 639958 / 100 µg
Clone	W22266D
Regulatory Status	RUO
Other Names	Receptor tyrosine-protein kinase ErbB-2 (ERBB2), human epidermal growth factor receptor 2 (HER2), metastatic lymph node gene 19 protein (MLN19), Proto-oncogene Neu, p185(erbB2), cluster of differentiation 340 (CD340), NGL, herstatin
Isotype	Rat IgG2a, κ
Description	CD340, also commonly known as HER-2 or ErbB2, is a member of the epidermal growth factor receptor family of cell membrane tyrosine kinases containing a single transmembrane domain. CD340 contains three furin repeats and two CheY homologous receiver domains in the extracellular region. Although CD340 itself contains no ligand- binding domain, it 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 lung adenocarcinoma, some breast cancers, glioblastoma, gastric cancer, and ovarian carcinoma, where it functions as an oncogene. CD340 is a therapeutic target in several human cancers and it has been shown that overexpression in breast cancers confers Taxol resistance.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant fragment of the intracellular domain of human CD340 (ErbB2/HER-2)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested ICC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by intracellular flow cytometry using our Cyto-Fast™ Fix/Perm Buffer Set. For flow cytometric staining, the suggested use of this reagent is ≤ 0.125 µg per million cells in 100 µL volume. For immunocytochemistry, a concentration range of 1.0 - 10.0 µg/mL is recommended. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Blue Laser (488 nm)
Additional Product Notes	For use in intracellular flow cytometry (ICFC), it is recommended to fix/permeabilize with Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803). Fixation/permeabilization with either True-Phos™ Perm Buffer (Cat. No. 425401) or True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401) is not recommended.

For use in immunocytochemistry (ICC), it is recommended to fix/permeabilize with any of the following:

-Fixation buffer (Cat. No. 420801) with 0.5 % Triton X-100

-Fixation buffer (Cat. No. 420801) with 100% ice-cold methanol

Fixation/permeabilization with 100% ice-cold methanol alone is not recommended.

Antigen Details

Structure	CD340 is a 1255 amino acid protein with a predicted molecular weight of 137.9 kD. It is a glycosylated receptor-like transmembrane protein; due to glycosylation, the observed molecular weight by Western Blot is closer to 175-185 kD.
Distribution	Cellular membrane and also present in internalized vesicles
Function	Receptor, transcriptional regulator
Interaction	Homodimerizes Heterodimerizes with EGFR, ErbB3, ErbB4, PIK3C2B, KPNB1, RANBP2, EEA1, CRM1, CLTC, MUC1, PTK6, RPA194, ACTB, PRKCABP, SRC, MYOC, CPNE3, SORL1, SH3BGRL
Ligand/Receptor	Heterodimerizes with other ERBB family members upon ligand binding, but does not directly bind ligand
Cell Type	Leukemia
Biology Area	Cell Biology, Immunology, Synaptic Biology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Akiyama T, <i>et al.</i> 1986. <i>Science</i>. 232:1644-6. 2. Bargmann CI, <i>et al.</i> 1986. <i>Nature</i>. 319:226-30. 3. Pegram MD, <i>et al.</i> 1997. <i>Oncogene</i>. 15:537-47. 4. Slamon DJ, <i>et al.</i> 1989. <i>Science</i>. 244:707-12. 5. Leone F, <i>et al.</i> 2003. <i>J Leukoc Biol</i>. 74:593-601.

Gene ID [2064](#)

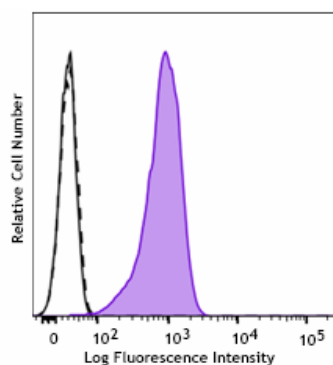
Related Protocols

- [Immunocytochemistry Staining Protocol](#)
- [Intracellular Flow Cytometry Staining Protocol](#)

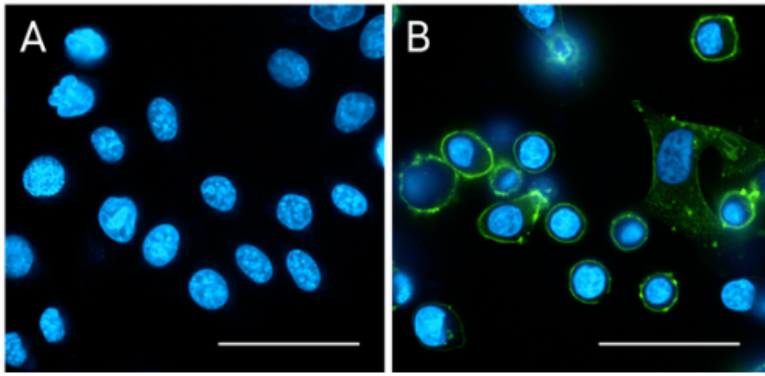
Other Formats

Purified anti-CD340 (ErbB2/HER-2), Alexa Fluor® 647 anti-CD340 (ErbB2/HER-2), Alexa Fluor® 488 anti-CD340 (ErbB2/HER-2), PE anti-CD340 (ErbB2/HER-2)

Product Data



SK-BR-3 cells (positive cell line, filled histogram) and HeLa cells (negative cell line, open histogram) were fixed and permeabilized using Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803) and intracellularly stained with Alexa Fluor® 488 anti-CD340 (ErbB2/HER-2) (clone W22266D), or Alexa Fluor® 488 Rat IgG2a, κ Isotype Control (clone RTK2758, Cat. No. 400525) (dashed histogram, representative of both the positive and negative cell lines).



HeLa cells (negative cell line, panel A) and SK-BR-3 cells (positive cell line, panel B) were fixed with 4% PFA Fixation Buffer (Cat. No. 420801) for 10 minutes, permeabilized with 100% ice-cold methanol for 10 minutes, and blocked with 5% FBS for 1 hour at room temperature. Cells were then stained with Alexa Fluor® 488 anti-ERRB2 (clone W22266D). Nuclei were counterstained with DAPI (Cat. No. 422801). The images were captured on a Revvity Operetta CLS™ High Content Analysis System with a 63X objective and merged. Scale bar: 50 μ m

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