

# Neu (CB11): sc-52349

## BACKGROUND

The EGF receptor family comprises several related receptor tyrosine kinases that are frequently overexpressed in a variety of carcinomas. Members of this receptor family include EGFR (HER1), Neu (ErbB-2, HER2), ErbB-3 (HER3), and ErbB-4 (HER4), which form either homodimers or heterodimers upon ligand binding. Neu, a glycoprotein, undergoes transactivation upon heterodimerization with other EGF receptor family members. Neu heterodimerization with ErbB-3 recruits heregulin, which induces phosphoinositide (PI) 3-kinase activation. Activation of Neu potentiates tumor cell motility and protease secretion and invasion, and also modulates cell cycle checkpoint function, DNA repair and apoptotic responses. Amplification and/or overexpression of Neu occurs in 20-30% of breast carcinomas. Measurement of increased Neu expression can be a predictor of disease prognosis. Neu may also prove to be a promising target for therapeutic agents.

## CHROMOSOMAL LOCATION

Genetic locus: ERBB2 (human) mapping to 17q12; ErbB2 (mouse) mapping to 11 D.

## SOURCE

Neu (CB11) is a mouse monoclonal antibody raised against an internal region of Neu of human origin.

## PRODUCT

Each vial contains 500  $\mu$ l culture supernatant containing IgG<sub>1</sub> with < 0.1% sodium azide.

## APPLICATIONS

Neu (CB11) is recommended for detection of Neu of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [10-20  $\mu$ l per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Suitable for use as control antibody for Neu siRNA (h): sc-29405, Neu siRNA (m): sc-29406, Neu siRNA (r): sc-108038, Neu shRNA Plasmid (h): sc-29405-SH, Neu shRNA Plasmid (m): sc-29406-SH, Neu shRNA Plasmid (r): sc-108038-SH, Neu shRNA (h) Lentiviral Particles: sc-29405-V, Neu shRNA (m) Lentiviral Particles: sc-29406-V and Neu shRNA (r) Lentiviral Particles: sc-108038-V.

Molecular Weight of Neu: 185 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, SK-BR-3 cell lysate: sc-2218 or T-47D cell lysate: sc-2293.

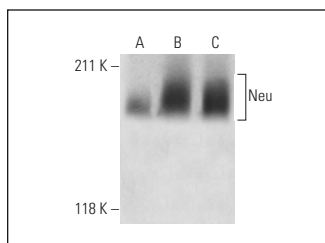
## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



Neu (CB11): sc-52349. Western blot analysis of Neu expression in MCF7 (A), SK-BR-3 (B) and T-47D (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Chapman, A.D., et al. 2001. Primary pulmonary osteosarcoma: case report and molecular analysis. *Cancer* 91: 779-784.
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- Francis, R.E., et al. 2009. FoxM1 is a downstream target and marker of HER2 overexpression in breast cancer. *Int. J. Oncol.* 35: 57-68.
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- Yang, L., et al. 2015. C6 ceramide dramatically enhances docetaxel-induced growth inhibition and apoptosis in cultured breast cancer cells: a mechanism study. *Exp. Cell Res.* 332: 47-59.
- Kallergi, G., et al. 2015. Expression of truncated human epidermal growth factor receptor 2 on circulating tumor cells of breast cancer patients. *Breast Cancer Res.* 17: 113.
- Jenie, R.I., et al. 2018. The cytotoxic and antimigratory activity of brazilin-doxorubicin on MCF-7/HER2 cells. *Adv. Pharm. Bull.* 8: 507-516.



See **Neu (3B5): sc-33684** for Neu antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.