Neu (F-11): sc-7301

**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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ERBB2 (human) mapping to 17q12; Erbb2 (mouse) mapping to 11 D.

**SOURCE**

Neu (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1220-1255 at the C-terminus of Neu of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neu (F-11) is available conjugated to agarose (sc-7301 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7301 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7301 PE), fluorescein (sc-7301 FITC), Alexa Fluor® 488 (sc-7301 AF488), Alexa Fluor® 546 (sc-7301 AF546), Alexa Fluor® 594 (sc-7301 AF594) or Alexa Fluor® 647 (sc-7301 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7301 AF680) or Alexa Fluor® 790 (sc-7301 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Neu (F-11) is available conjugated to biotin (sc-7301 B), 200 µg/ml, for WB, IHC(P) and ELISA.

Blocking peptide available for competition studies, sc-7301 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Neu (F-11) is recommended for detection of Neu gp185 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Neu: 185 kDa.

Positive Controls: NIH/3T3 whole cell lysate; sc-2210, SK-BR-3 cell lysate; sc-2218 or MDA-MB-231 cell lysate: sc-2232.

**DATA**

Neu (F-11): sc-7301. Western blot analysis of Neu expression in MDA-MB-231 (A), BT-20 (B), SK-BR-3 (C) and NIH/3T3 (D) whole cell lysates and human cervix tissue extract (E); Detection reagent used: m-IgG Fc BF-HRP: sc-25459.

Neu (F-11): sc-7301. Immunoperoxidase staining of formalin fixed, paraffin embedded human uterine cervix tissue showing cytoplasmic and membrane staining of squamous epithelial cells (A); Immunofluorescence staining of methanol fixed NIH/3T3 cells transfected with Neu showing membrane staining (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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