**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 (PI3) 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.

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).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

Store at 4°C, **NO 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 10^6 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 HEL 92.1.7 cell lysate: sc-2270.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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