Neu (A-2): sc-393712

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 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1180-1197 within a C-terminal cytoplasmic domain of Neu of human origin.

PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neu (A-2) is available conjugated to agarose (sc-393712 AC), 500 µg/ml within a C-terminal cytoplasmic domain of Neu of human origin.

Blocking peptide available for competition studies, sc-393712 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 (A-2) is recommended for detection of Neu of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Neu (A-2) is also recommended for detection of Neu in additional species, including equine.


Molecular Weight of Neu: 185 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, MDA-MB-231 cell lysate: sc-2206, 594 (sc-393712 AF594), Alexa Fluor® 488 (sc-393712 AF488), Alexa Fluor® 546 (sc-393712 AF546), Alexa Fluor® 594 (sc-393712 AF594) or Alexa Fluor® 647 (sc-393712 AF647), 200 µg/ml, for WB (RGB), IF, IHC (P) and FCM; and to either Alexa Fluor® 680 (sc-393712 AF680) or Alexa Fluor® 790 (sc-393712 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393712 P. (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Selective binding to Neu (A-2) HRP: sc-393712 HRP. Direct western blot analysis of Neu expression in NIH/3T3 (A), MDA-MB-231 (B) and MCF7 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

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