### 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 (0.N.211) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 1242-1255 of Neu of human origin.

### PRODUCT

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

### APPLICATIONS

Neu (0.N.211) is recommended for detection of Neu of mouse, rat and human origin by Western Blotting (starting dilution 1:5000, dilution range 1:5000-1:10000), 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Neu: 185 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2208, MDA-MB-231 cell lysate: sc-2232 or NIH/3T3 whole cell lysate: sc-2210.

### STORAGE

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

### DATA

**Neu (0.N.211): sc-71667**

Western blot analysis of Neu expression in OVAR-3 (A), MDA-MB-231 (B), MCF7 (C), A-431 (D) and NIH/3T3 (E) whole cell lysates.

**Neu (0.N.211): sc-71667**. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells and myoepithelial cells (A); immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic staining of squamous epithelial cells (B).

### SELECT PRODUCT CITATIONS


### RESEARCH USE

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

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