**BACKGROUND**

Neu (α-ErbB-2 erythroblast leukemia viral oncogene homolog 2, HER-2, NGL, TKR1, c-Erb B2) oncogene was originally cloned from a rat neuroglioblastoma. Human Neu is referred to as HER-2 since the protein structure resembles human epidermal growth factor receptor (HER). ErbB-2 refers to a high level of similarity to ErbB (avian erythroblastosis oncogene B), later found to code for EGFR (HER). Tyr 1248-phosphorylated Neu localizes with Mucin 4/sialomucin complex at the apical surfaces of ductal and alveolar cells in rodent lactating gland. Phosphorylation of Neu at Tyr 1139 promotes association of GRB2 and GRB7 through an Src homology 2 (SH2) domain-dependent interaction and contributes to the etiology of certain breast, gastric and esophageal cancers and testicular germ cell tumors. Neu phosphorylation on Tyr 1221 and Tyr 1248 promotes association of Shc (SH2 domain-containing transforming protein 1) through an SH2 domain. Neu phosphorylation at Tyr 1196 and Tyr 1248 promotes association of Shc through a PTB (phosphotyrosine-binding) domain. SH2 and PTB domains recognize tyrosine phosphorylated proteins in a sequence-specific fashion and transduce extracellular signals via subcellular targeting, directing assembly of complexes and modulating enzymatic activity.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

p-Neu (6G7) is a mouse monoclonal antibody raised against phosphopeptide corresponding to amino acid residues surrounding tyrosine 1248 of Neu of human origin.

**PRODUCT**

Each vial contains 50 µg in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

**APPLICATIONS**

p-Neu (6G7) is recommended for detection of Tyr 1248 phosphorylated Neu of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)). Suitable for use as control antibody for Neu siRNA (h): sc-29405, Neu siRNA (m): sc-29406, Neu shRNA Plasmid (h): sc-29406-SH, Neu shRNA Plasmid (m): sc-29406-SH, Neu shRNA (h) Lentiviral Particles: sc-29405-V and Neu shRNA (m) Lentiviral Particles: sc-29406-V.

Molecular Weight of p-Neu: 138 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, MDA-MB-231 cell lysate: sc-2232 or SK-BR-3 cell lysate: sc-2218.

**DATA**

Western blot analysis of Neu phosphorylation in untreated (A, D), EGF treated (B, E) and EGF and lambda protein phosphatase treated (C, F) A-431 whole cell lysates. Antibodies tested include p-Neu (6G7): sc-81507 (A, B, C) and Neu (C-18): sc-284 (D, E, F).

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.