**BACKGROUND**

Neu (ErbB-2 erythroblastic 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 a 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**


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**PRODUCT**

Each vial contains 50 µg IgG1 in 500 µl of PBS with < 0.1% sodium azide, 1% gelatin, PEG and sucrose.

**APPLICATIONS**

p-Neu (14C3) is recommended for detection of Tyr 1139 phosphorylated Neu of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for Neu siRNA (h): sc-29405.

Molecular Weight of p-Neu: 185 kDa.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048.

**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 or our catalog for detailed protocols and support products.