ErbB-4 (C-7): sc-8050

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. The gene encoding ErbB-4 is expressed as a full length protein, which produces a short membrane-anchored cytoplasmic domain fragment and a long ectodomain fragment. The short fragment is heavily tyrosine phosphorylated and possesses tyrosine kinase catalytic activity toward an exogenous substrate. Proteolytic cleavage of ErbB-4 is promoted by the binding of heregulin. ErbB-4 is involved in cell proliferation and differentiation and its expression is highest in breast carcinoma cell lines, normal skeletal muscle, heart, pituitary, brain and cerebellum.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: ERBB4 (human) mapping to 2q34; Erbb4 (mouse) mapping to 1 C3.

SOURCE
ErbB-4 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1280-1308 at the C-terminus of ErbB-4 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.

ErbB-4 (C-7) is available conjugated to agarose (sc-8050 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8050 HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-8050 PE), fluorescein (sc-8050 FITC), Alexa Fluor® 488 (sc-8050 AF488), Alexa Fluor® 546 (sc-8050 AF546), Alexa Fluor® 594 (sc-8050 AF594) or Alexa Fluor® 647 (sc-8050 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-8050 AF680) or Alexa Fluor® 790 (sc-8050 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8050 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
ErbB-4 (C-7) is recommended for detection of ErbB-4 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).

ErbB-4 (C-7) is also recommended for detection of ErbB-4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ErbB-4 siRNA (h): sc-35329, ErbB-4 siRNA (m): sc-35330, ErbB-4 shRNA Plasmid (h): sc-35329-SH, ErbB-4 shRNA Plasmid (m): sc-35330-SH, ErbB-4 shRNA (h) Lentiviral Particles: sc-35329-V and ErbB-4 shRNA (m) Lentiviral Particles: sc-35330-V.

Molecular Weight of ErbB-4 precursor: 180 kDa.

Molecular Weight of ErbB-4 cleaved forms: 80/120 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, MCF7 whole cell lysate: sc-2206 or mouse brain extract: sc-2253.

DATA

SELECT PRODUCT CITATIONS

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