BACKGROUN D

The Trkoncogene encodes a membrane-spanning protein tyrosine kinase, gp140Trk, whose expression is restricted in vivo to neurons of the sensory spinal and cranial ganglia of neural crest origin. Nerve growth factor (NGF) stimulates tyrosine phosphorylation of gp140Trk in neural cell lines and in embryonic dorsal root ganglia. Tyrosine phosphorylation of Trk by NGF is rapid, specific and occurs with picomolar quantities of factor, indicating that the response is mediated by physiological amounts of NGF, suggesting that gp140Trk participates in the primary signal transduction mechanism of NGF. An additional component of the gp140 trk receptor complex, NGFR p75, binds to the neurotrophic factors with low affinity but is required for efficient signaling. NGFR p75 accelerates gp140Trk activation and may recruit downstream effector molecules to the liganded complex.

CHROMOSOMAL LOCATION

Genetic locus: NGFR (human) mapping to 17q21.33; Ngfr (mouse) mapping to 11 D.

SOURCE

NGFR p75 (ME20.4) is a mouse monoclonal antibody raised against WM245 melanoma cells 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.

NGFR p75 (ME20.4) is available conjugated to agarose (sc-13577 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13577 HRP), 200 µg/ml, for WB, HRP (sc-13577 PE), fluorescein (sc-13577 FITC), Alexa Fluor® 488 (sc-13577 AF488), Alexa Fluor® 546 (sc-13577 AF546), Alexa Fluor® 594 (sc-13577 AF594) or Alexa Fluor® 647 (sc-13577 AF647), 200 µg/ml, for WB, IF, HRP (sc-13577 AF680) or Alexa Fluor® 680 (sc-13577 AF680) or Alexa Fluor® 790 (sc-13577 AF790), 200 µg/ml, for near-infrared (NIR) WB, IF and FCM.

APPLICATIONS

NGFR p75 (ME20.4) is recommended for detection of NGFR p75 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

NGFR p75 (ME20.4) is also recommended for detection of NGFR p75 in additional species, including bovine, porcine, feline and canine. Suitable for use as control antibody for NGFR p75 siRNA (h): sc-36058, NGFR p75 siRNA (m): sc-37268, NGFR p75 shRNA Plasmid (h): sc-36058-SH, NGFR p75 shRNA Plasmid (m): sc-37268-SH, NGFR p75 shRNA (h) Lentiviral Particles: sc-36058-V and NGFR p75 shRNA (m) Lentiviral Particles: sc-37268-V.

Molecular Weight of NGFR p75: 75 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237.

STORAGE

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

DATA

Western blot analysis of NGFR p75 expression in Hs 294T whole cell lysate immunoprecipitated with NGFR p75 (ME20.4): sc-13577 and detected with NGFR p75 (H-92): sc-5634.

SELECT PRODUCT CITATIONS


RESEARCH USE

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