**BACKGROUND**

The substance P receptor, also designated NK-1R for neurokinin 1 receptor, is a member of a class of tachykinin receptors which also includes the NK-2 receptor and the NK-3 receptor. Substance P receptors bind to tachykinin peptides, including substance P, substance K and neuromedin K. NK-1R is likely to be involved in nociceptive transmission, basal ganglia function or anxiety and depression. NK-1R is expressed in a high proportion of spinothalamic and spinobranchial neurons located in lamina 1. NK-1R neurons in the dorsal horn of the spinal cord may play a role in chronic neuropathic and inflammatory pain. Ligand-induced internalization of NK-1R into early endosomes deplete the cell surface of these receptors. This internalization may be involved in a down-regulation response of a cell to substance P.

**CHROMOSOMAL LOCATION**

Genetic locus: TACR1 (human) mapping to 2p12; Tacr1 (mouse) mapping to 6 C3.

**SOURCE**

NK-1R (D-11) is a mouse monoclonal antibody raised against amino acids 325-407 mapping near the C-terminus of NK-1R 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.

NK-1R (D-11) is available conjugated to agarose (sc-365091 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365091 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythin (sc-365091 PE), fluorescein (sc-365091 FITC), Alexa Fluor® 488 (sc-365091 AF488), Alexa Fluor® 546 (sc-365091 AF546), Alexa Fluor® 594 (sc-365091 AF594) or Alexa Fluor® 647 (sc-365091 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365091 AF680) or Alexa Fluor® 790 (sc-365091 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

NK-1R (D-11) is recommended for detection of NK-1R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). NK-1R (D-11) is also recommended for detection of NK-1R in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NK-1R siRNA (h): sc-36069, NK-1R siRNA (m): sc-36070, NK-1R shRNA Plasmid (h): sc-36069-SH, NK-1R shRNA Plasmid (m): sc-36070-SH, NK-1R shRNA (h) Lentiviral Particles: sc-36069-V and NK-1R shRNA (m) Lentiviral Particles: sc-36070-V.

Molecular Weight (predicted) of NK-1R: 48 kDa.

Molecular Weight (observed) of NK-1R glycosylation: 74/101 kDa.

**STORAGE**

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

**DATA**

NK-1R (D-11): sc-365091. Western blot analysis of NK-1R expression in WEHI-3(A), K-162 (B) and CCO-10653b(C) whole cell lysates.

NK-1R (D-11): sc-365091. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing membrane and cytoplasmatic staining of glandular cells(A); Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, fibroblasts, Langhans cells and melanocytes (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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