PTN (H-6): sc-74443

BACKGROUND

Pleiotrophin (PTN) and midkine (MK) comprise a family of structurally related, developmentally regulated genes. Human PTN is synthesized as a 168 amino acid precursor which is subsequently cleaved to generate a 136 amino acid protein. Human PTN is approximately 50% identical to human MK, with conservation of all 10 cysteines. Cells reported to express PTN include osteoblasts, chondrocytes, fibroblasts, astrocytes, oligodendroglia, Schwann cells, neurons, pitуicytes and Leydig cells. PTN is a heparin-binding growth factor that functions as a weak mitogen and promotes neurite-outgrowth from embryonic brain neurons. PTN is expressed at high levels in many tissues during fetal development, but becomes restricted to the brain in adult animals.

CHROMOSOMAL LOCATION

Genetic locus: PTN (human) mapping to 7q33; Ptn (mouse) mapping to 6B1.

SOURCE

PTN (H-6) is a mouse monoclonal antibody raised against amino acids 94-168 of PTN 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.

PTN (H-6) is available conjugated to agarose (sc-74443 AC), 500 µg/0.25 ml, for IP; to either Alexa Fluor® 488 (sc-74443 A F488), Alexa Fluor® 546 (sc-74443 A F546), Alexa Fluor® 680 (sc-74443 AF680) or Alexa Fluor® 647 (sc-74443 AF647), 200 µg/ml, for WB, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74443 AF680) or Alexa Fluor® 790 (sc-74443 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PTN (H-6) is recommended for detection of precursor and mature PTN 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).

Suitable for use as control antibody for PTN siRNA (h): sc-39713, PTN shRNA Plasmid (h): sc-39714, PTN shRNA Plasmid (m): sc-39714-SH, PTN shRNA (h) Lentiviral Particles: sc-39713-V and PTN shRNA (m) Lentiviral Particles: sc-39714-V.

Molecular Weight (predicted) of PTN: 18 kDa.

Molecular Weight (observed) of PTN: 18-25 kDa.


RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Lumino Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG(BP-FITC): sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

PTN (H-6): sc-74443. Western blot analysis of PTN expression in non-transfected: sc-117752 (A) and mouse PTN transfected: sc-122837 (B) 293T whole cell lysates.

PTN (H-6): sc-74443. Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing cytoplasmatic staining of glandular cells (A); Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing membrane and cytoplasmatic staining of subset of cells in seminiferous ducts (B).

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.