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 ten cysteines. Cells reported to express PTN include osteoblasts, chondrocytes, fibroblasts, astrocytes, oligodendroglia, Schwann cells, neurons, pituicytes 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 6 B1.

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 IgG, 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 agarose in 1 ml, for IP; to HRP (sc-74443 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74443 PE), fluorescein (sc-74443 FITC), Alexa Fluor® 488 (sc-74443 AF488), Alexa Fluor® 546 (sc-74443 AF546), Alexa Fluor® 594 (sc-74443 AF594) or Alexa Fluor® 647 (sc-74443 AF647), 200 μg/ml, for WB (RGB), IF, 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.

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).


Molecular Weight (predicted) of PTN: 18 kDa.

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

Positive Controls: PTN (m): 293T Lysate: sc-122837, rat brain extract: sc-2392 or HeLa nuclear extract: sc-2120.

DATA

STOREAGE

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

SELECT PRODUCT CITATIONS


RESEARCH USE

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