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 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 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.

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APPLICATIONS

PTN (H-6) is recommended for detection of precursor and mature PTN of mouse, rat and human origin by Western Blotting (starting dilution 1:1,000), 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; PTN (h): 293T Lysate; PTN (m) Transfected: sc-122837, PTN (h) Transfected: sc-122838, PTN shRNA Plasmid (h): sc-39713, PTN shRNA Lentiviral Particles: sc-39714-V, PTN shRNA (m): sc-39714-V.

STORAGE

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

DATA

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<tr>
<th>M</th>
<th>Molecular Weight (predicted) of PTN</th>
<th>18 kDa</th>
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<tbody>
<tr>
<td>M</td>
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<tr>
<td>P</td>
<td>PTN (m) Transfected</td>
<td>sc-122837</td>
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<td>P</td>
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<td>P</td>
<td>PTN shRNA Plasmid (h)</td>
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SELECT PRODUCT CITATIONS


RESEARCH USE

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