

# Plexin B1 (C-terminal Region)

Cat. # PP1841

Host Rabbit Polyclonal

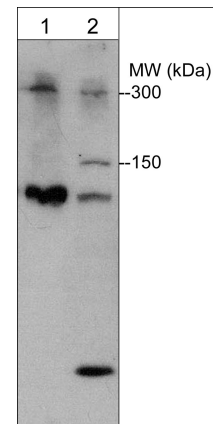
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## **Background:**

Plexins are a family of large integral membrane proteins that complex with neuropilins to form semaphorin co-receptors. The extracellular region of plexins contains a semaphorin domain, multiple glycine-rich motifs, and MET-related sequences. The cytoplasmic region contains a Sex/Plexin domain and putative tyrosine phosphorylation sites that mediate signal transduction after activation. In addition, Plexin B1 and B2 contain cleavage sites for subtilisin-like proprotein convertases. These cleavage sites may be important for regulating assembly of heterodimeric receptors or release of the extracellular domain. Plexin-B1 is expressed as a 300 kDa precursor protein that can be cleaved into a 200 kDa  $\alpha$ -subunit and a 100 kDa  $\beta$ -subunit. This plexin is the receptor for the class IV semaphorin, Sema-4D. Sema-4D activation of Plexin B1 recruits and activates c-Met, which can promote cell survival, migration, and angiogenesis.

## **References**

- Tamagnone, L. et al. (1999) Cell 99:71.  
Artigiani, S. et al. (2003) J Biol. Chem. 278(12):10094.  
Basile, J.R. et al. (2006) PNAS 103(24):9017.



Western blot of mouse liver (lane 1) and human umbilical vein endothelial (HUVEC) cells. The blot was probed with anti-Plexin B1 at a dilution of 1:1000.

## **Immunogen:**

A synthetic peptide (coupled to KLH) corresponding to amino acid residues in the C-terminal region of human Plexin B1. This sequence has high homology with similar regions in rat and mouse Plexin B1, and has low homology to other plexin family members.

## **Applications:**

WB 1:1000  
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

## **Related Products:**

- PP1301 Plexin A1 (Sema Domain) Rabbit Polyclonal  
PX1845 Plexin B1 (C-terminal Region) Peptide  
SP1221 Semaphorin-3A (Central Region) Rabbit Polyclonal  
SP1241 Semaphorin-3A (C-terminal) Rabbit Polyclonal  
SP1401 Semaphorin-3A (N-terminal) Rabbit Polyclonal  
SM1881 Semaphorin-4D (C-terminal Region) Mouse Monoclonal

## **Buffer and Storage:**

Rabbit polyclonal, affinity-purified antibody is supplied in 100 $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}$ C. Do not aliquot. Stable for 1 year.

## **Specificity:**

This antibody was affinity purified using Plexin B1 (C-terminal region) peptide (without carrier). The antibody detects 300, 150, and 100 kDa\* bands on SDS-PAGE immunoblots of human HepG2 and HUVEC cells. These bands correspond to the full length and proteolytically processed forms of Plexin B1. In mouse liver, this antibody detects 300 and 100 kDa forms of Plexin B1.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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