

# PLP2 (C-12): sc-132404

## BACKGROUND

Proteolipid protein 2, also known as PLP2 or A4, is a 152 amino acid, multi-pass transmembrane protein containing a MARVEL (MAL and related proteins for vesicle trafficking and membrane link) domain. Proteins containing the MARVEL domain have an M-shaped topology, with four transmembrane-helix regions and cytoplasmic N- and C-terminal regions. Localized to the membrane, PLP2 is highly enriched in colonic mucosa and is expressed in a gradient along the crypto-villus axis, with the most abundant expression in the lower half of the crypt. PLP2 has been thought to play a role in chemotaxis and cell differentiation in the intestinal epithelium. PLP2 has also been found in the pyramidal cells of hippocampus and granular cells of the cerebellum and has been implicated in X-linked mental retardation.

## REFERENCES

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5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300112. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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## CHROMOSOMAL LOCATION

Genetic locus: PLP2 (human) mapping to Xp11.23; Plp2 (mouse) mapping to X A1.1.

## SOURCE

PLP2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PLP2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132404 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PLP2 (C-12) is recommended for detection of PLP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with PLP.

PLP2 (C-12) is also recommended for detection of PLP2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PLP2 siRNA (h): sc-90929, PLP2 siRNA (m): sc-152340, PLP2 shRNA Plasmid (h): sc-90929-SH, PLP2 shRNA Plasmid (m): sc-152340-SH, PLP2 shRNA (h) Lentiviral Particles: sc-90929-V and PLP2 shRNA (m) Lentiviral Particles: sc-152340-V.

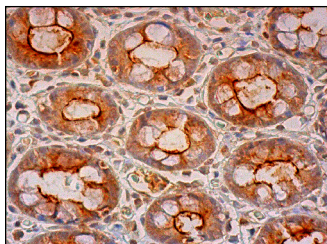
Molecular Weight of PLP2: 17 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



PLP2 (C-12): sc-132404. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and apical membrane staining of glandular cells and cytoplasmic staining of endothelial cells.

## 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.