

BPLP (P-13): sc-160170

BACKGROUND

BPLP (basic proline-rich lacrimal protein), also known as proline-rich protein 1 (PRL1) or PROL1, is a 248 amino acid secreted protein belonging to the PROL1/PROL3 family. Abundantly expressed in lacrimal gland and moderately expressed in submandibular gland, BPLP is cleaved into opiorphin, an endogenous inhibitor of C10, also known as neprilysin, and CD13, also designated aminopeptidase N. A member of the opiorphin family, BPLP is suggested to be involved in erectile physiology. BPLP is encoded by a gene located on human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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3. Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.
4. Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. *Orthod. Craniofac. Res.* 10: 67-81.
5. Versteegh, F.G., et al. 2007. EvC working party. Growth hormone analysis and treatment in Ellis-van Creveld syndrome. *Am. J. Med. Genet. A* 143A: 2113-2121.
6. Tong, Y., et al. 2008. The opiorphin gene (Prol1) and its homologues function in erectile physiology. *BJU Int.* 102: 736-740.
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CHROMOSOMAL LOCATION

Genetic locus: PROL1 (human) mapping to 4q13.3.

SOURCE

BPLP (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BPLP 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-160170 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BPLP (P-13) is recommended for detection of BPLP of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BPLP siRNA (h): sc-88882, BPLP shRNA Plasmid (h): sc-88882-SH and BPLP shRNA (h) Lentiviral Particles: sc-88882-V.

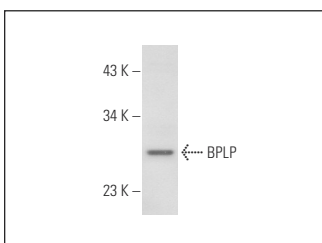
Molecular Weight of BPLP: 23 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



BPLP (P-13): sc-160170. Western blot analysis of BPLP expression in ARPE-19 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.