

BCMP1 (P-14): sc-161383

BACKGROUND

BCMP1 (brain cell membrane protein 1), also known as TM4SF10 or TMEM47, is a 181 amino acid multi-pass membrane protein belonging to the PMP22/EMP/claudin protein family. Localized to the endoplasmic reticulum, BCMP1 is abundantly expressed in the brain. The gene encoding BCMP1 is located on human chromosome X and mutations in this gene may be associated with impaired brain function leading to mental retardation. Human chromosome X contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination, as an X and a Y chromosome lead to normal male development, while two copies of an X chromosome lead to normal female development. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

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- Bernardino-Sgheri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Simske, J.S., et al. 2003. The cell junction protein VAB-9 regulates adhesion and epidermal morphology in *C. elegans*. *Nat. Cell Biol.* 5: 619-625.
- Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. *Lancet. Neurol.* 2: 731-740.
- Cantagrel, V., et al. 2004. Disruption of a new X linked gene highly expressed in brain in a family with two mentally retarded males. *J. Med. Genet.* 41: 736-742.
- Christophe-Hobertus, C., et al. 2004. TM4SF10 gene sequencing in XLMR patients identifies common polymorphisms but no disease-associated mutation. *BMC Med. Genet.* 5: 22.

CHROMOSOMAL LOCATION

Genetic locus: TMEM47 (human) mapping to Xp21.1; Tmem47 (mouse) mapping to X B.

SOURCE

BCMP1 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BCMP1 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-161383 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BCMP1 (P-14) is recommended for detection of BCMP1 of mouse, rat and 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).

BCMP1 (P-14) is also recommended for detection of BCMP1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BCMP1 siRNA (h): sc-91124, BCMP1 siRNA (m): sc-141678, BCMP1 shRNA Plasmid (h): sc-91124-SH, BCMP1 shRNA Plasmid (m): sc-141678-SH, BCMP1 shRNA (h) Lentiviral Particles: sc-91124-V and BCMP1 shRNA (m) Lentiviral Particles: sc-141678-V.

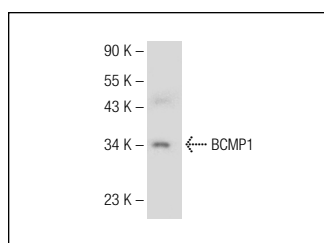
Molecular Weight of BCMP1: 20 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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



BCMP1 (P-14): sc-161383. Western blot analysis of BCMP1 expression in K-562 whole cell lysate.

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.

PROTOCOLS

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