SANTA CRUZ BIOTECHNOLOGY, INC.

OBCAM (H-38): sc-99156

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Opioid-binding cell adhesion molecule (OBCAM) is a glycosylphosphatidylinositol (GPI)-anchored neural cell adhesion molecule that binds opioids in the presence of acidic lipids. OBCAM consists of three immunoglobulin-like C2-type domains characteristic of members of the immunoglobulin superfamily and the IgLON subfamily, of which limbic system-associated membrane protein (LAMP) and neurotrimin (Ntm) are also members. Homophilic and heterophilic interactions between IgLON family members may play a role in the direction of neuronal projections by both promoting and inhibiting growth. During early rat brain development, OBCAM is highly expressed in post-mitotic neurons and in fiber tracts containing expanded axons. In adult rat brain, OBCAM is expressed primarily in the gray matter. OBCAM is also expressed in the hypothalamic magnocellular neurons, specifically in dendrites. OBCAM expression patterns suggest that it assists in axonal outgrowth processes and gives magnocellular neurons the ability to rearrange dendritic connectivity.

REFERENCES

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2. Hachisuka, A., Nakajima, O., Yamazaki, T. and Sawada, J. 1999. Localization of opioid-binding cell adhesion molecule (OBCAM) in adult rat brain. Brain Res. 842: 482-486.
3. Miyata, S., Funatsu, N., Matsunaga, W., Kiyohara, T., Sokawa, Y. and Maekawa, S. 2000. Expression of the IgLON cell adhesion molecules Kilon and OBCAM in hypothalamic magnocellular neurons. J. Comp. Neurol. 424: 74-85.
4. Hachisuka, A., Nakajima, O., Yamazaki, T. and Sawada, J. 2000. Developmental expression of opioid-binding cell adhesion molecule (OBCAM) in rat brain. Brain Res. 122: 183-191.
5. Gil, O.D., Zhang, L., Chen, S., Ren, Y.Q., Pimenta, A., Zanazzi, G., Hillman, D., Levitt, P. and Salzer, J.L. 2002. Complementary expression and heterophilic interactions between IgLON family memer neurotrimin and LAMP. J. Neurobiol. 51: 190-204.

CHROMOSOMAL LOCATION

Genetic locus: OPCML (human) mapping to 11q25; Opcml (mouse) mapping to 9 A4.

SOURCE

OBCAM (H-38) is a rabbit polyclonal antibody raised against amino acids 308-345 mapping at the C-terminus of OBCAM 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.

APPLICATIONS

OBCAM (H-38) is recommended for detection of OBCAM 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).

OBCAM (H-38) is also recommended for detection of OBCAM in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for OBCAM siRNA (h): sc-72056, OBCAM siRNA (m): sc-72057, OBCAM shRNA Plasmid (h): sc-72056-SH, OBCAM shRNA Plasmid (m): sc-72057-SH, OBCAM shRNA (h) Lentiviral Particles: sc-72056-V and OBCAM shRNA (m) Lentiviral Particles: sc-72057-V.

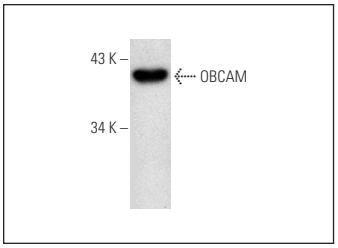
Molecular Weight of OBCAM: 51-58 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



OBCAM (H-38): sc-99156. Western blot analysis of OBCAM expression in JEG-3 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.