

### Brevican Antibody

Brevican Antibody, Clone S294A-6 Catalog # ASM10262

## Specification

# **Brevican Antibody - Product Information**

Application Primary Accession Other Accession Host Isotype Reactivity Clonality **Description** Mouse Anti-Rat Brevican Monoclonal IgG2B WB P55068 NP\_001028837.1 Mouse IgG2B Mouse, Rat Monoclonal

### Target/Specificity

Detects ~140kDa (and smaller due to proteolytic cleavage).

#### **Other Names**

BCAN Antibody, BEHAB Antibody, CSPG7 Antibody, Brain enriched hyaluronan binding protein Antibody, Brevican core protein Antibody, Brevican core protein isoform 1 Antibody, Brevican core protein isoform 2 Antibody, Brevican proteoglycan Antibody, Chondroitin sulfate proteoglycan 7 Antibody, Chondroitin sulfate proteoglycan BEHAB Antibody, MGC13038 Antibody

Immunogen Fusion protein amino acids 219-655 of rat Brevican

**Purification** Protein G Purified

Storage Storage Buffer PBS pH7.4, 50% glycerol, 0.09% sodium azide

-20°C

Shipping Temperature Certificate of Analysis Blue Ice or 4ºC

 $1 \mu$ g/ml of SMC-428 was sufficient for detection of Brevican in 20  $\mu$ g of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization** Extracellular Space | Extracellular Matrix | Membrane | Lipid-Anchor | GPI-Anchor

## **Brevican Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

<u>Western Blot</u>

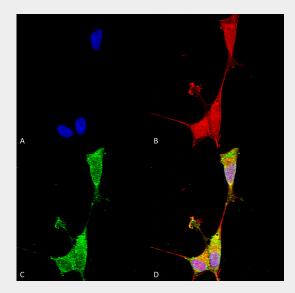
Blocking Peptides



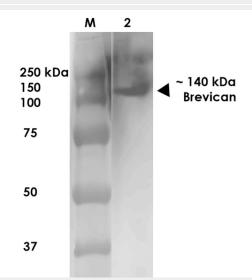
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

<u>Cell Culture</u>

### **Brevican Antibody - Images**



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Brevican Monoclonal Antibody, Clone N294A/6 (ASM10262). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Brevican Monoclonal Antibody (ASM10262) at 1:100 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Brevican Antibody (D) Composite.



Western Blot analysis of Rat Brain Membrane showing detection of ~140 kDa Brevican protein using Mouse Anti-Brevican Monoclonal Antibody, Clone N294A/6 (ASM10262). Lane 1: MW Ladder. Lane 2: Rat Brain Membrane (10  $\mu$ g). . Load: 10  $\mu$ g. Block: 5% milk. Primary Antibody: Mouse Anti-Brevican Monoclonal Antibody (ASM10262) at 1:1000 for 1 hour at RT. Secondary Antibody:



Goat Anti-Mouse IgG: HRP at 1:200 for 1 hour at RT. Color Development: TMB solution for 10 min at RT. Predicted/Observed Size:  $\sim$ 140 kDa.

# Brevican Antibody - Background

Brevican is the most abundant chondroitin sulfate proteoglycan in the extracellular matrix of the adult brain. It is a member of the lectican family of aggregating extracellular matrix proteoglycans that bear chondroitin sulfate (CS) chains. It is highly expressed in the central nervous system and is thought to stabilize synapses and inhibit neural plasticity. Brevican is secreted from astrocytes and neurons as a 145 kD core protein that bears up to three, covalently-linked, CS chains. It is also is secreted as a 145 kD core protein without CS chains. When cleaved by extracellular glutamyl endopeptidases, the ADAMTSs, a 55 kD N-terminal fragment is formed that contains the unique C terminal epitope EAMESE.

## **Brevican Antibody - References**

1. Yamada H., Watanabe K., Shimonaka M. and Yamaguchi Y. (1994) J. Biol. Chem. 269: 10119-10126.

2. Yamada H., Watanabe K., Shimonaka M., Yamasaki M. and Yamaguchi Y. (1995) Biochem. Biophys. Res. Commun. 216: 957-963.

3. Rauch U., et al. (1997) Genomics 44: 15-21.

4. Zhang H., Kelly G., Zerillo C., Jaworski D.M. and Hockfield S. (1998) J. Neurosci. 7: 2370-2376. 5. Aspberg A., Adam S., Kostka G., Timpl R. and Heinegard D. (1999) J. Biol. Chem. 274: 20444-20449.