

# brevican (C-20): sc-20556

## BACKGROUND

Brain tissue expresses a number of different proteoglycans, including both heparan sulfate- and chondroitin sulfate-containing species. While heparan sulfate proteoglycans are present mainly on the cell surface, chondroitin sulfate proteoglycans (CSPGs) are distributed mainly in extracellular spaces of the brain. Brevican is a brain proteoglycan of the aggrecan/versican/neurocan family. In the adult brain, the brevican core protein undergoes proteolytic cleavage and exists as a full-length form, a carboxy-terminal fragment and an amino-terminal fragment. This protein is named brevican since it is the shortest core protein in this family, from the Latin word "brevis", meaning "short". A significant amount of brevican devoid of any glycosaminoglycan chains is present in brain, indicating that brevican is a "part-time" proteoglycan. The gene which encodes brevican maps to mouse chromosome 3 between microsatellite markers D3Mit22 and D3Mit11.

## REFERENCES

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3. Rauch, U., Meyer, H., Brakebusch, C., Seidenbecher, C., Gundelfinger, E.D., Beier, D.R. and Fassler, R. 1997. Sequence and chromosomal localization of the mouse brevican gene. *Genomics* 44: 15-21.
4. Zhang, H., Kelly, G., Zerillo, C., Jaworski, D.M. and Hockfield, S. 1998. Expression of a cleaved brain-specific extracellular matrix protein mediates glioma cell invasion *in vivo*. *J. Neurosci.* 7: 2370-2376.
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## CHROMOSOMAL LOCATION

Genetic locus: BCAN (human) mapping to 1q23.1; Bcan (mouse) mapping to 3 F1.

## SOURCE

brevican (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of brevican 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-20556 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

brevican (C-20) is recommended for detection of brevican isoform 1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with isoform 2.

brevican (C-20) is also recommended for detection of brevican isoform 1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for brevican siRNA (h): sc-41899, brevican siRNA (m): sc-41900, brevican shRNA Plasmid (h): sc-41899-SH, brevican shRNA Plasmid (m): sc-41900-SH, brevican shRNA (h) Lentiviral Particles: sc-41899-V and brevican shRNA (m) Lentiviral Particles: sc-41900-V.

Molecular Weight of full length brevican: 145 kDa.

Molecular Weight of brevican N-terminal cleavage product: 50 kDa.

Molecular Weight of brevican C-terminal cleavage product: 80 kDa.

Positive Controls: rat brain extract: sc-2392.

## 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **aggrecan/brevican (D-4): sc-166951** or **brevican (2): sc-135849**, our highly recommended monoclonal alternatives to brevican (C-20).