

Technical Data Sheet

Purified Mouse Anti-Chondroitin Sulfate

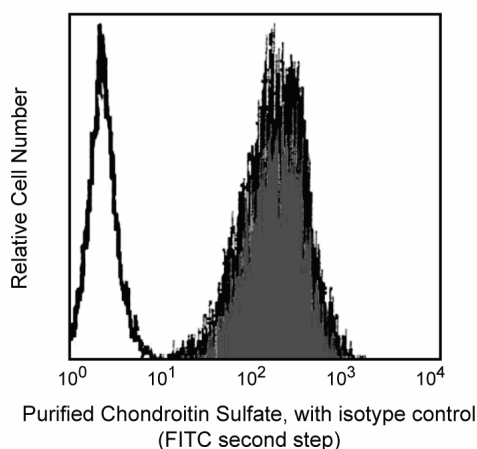
Product Information

Material Number:	554275
Alternate Name:	CSPG4; NG2; Chondroitin sulfate proteoglycan 4; MCSP; MCSPG; MELCSPG; MSK16
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	9.2.27
Immunogen:	Extracts of Human M21 Melanoma Cells
Isotype:	Mouse (BALB/c) IgG2a
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 9.2.27 monoclonal antibody specifically binds to CSPG4 (chondroitin sulfate proteoglycan 4). CSPG4 is also known as MCSP (melanoma chondroitin sulfate proteoglycan) and NG2 (neural/glial antigen 2). The hybridoma secreting the 9.2.27 antibody was generated using a human melanoma cell extract as the immunogen. Tumor cells display a variety of antigens which have been defined by antibodies. Antibodies that specifically react with tumor-associated antigens are useful in understanding the biology of particular tumor types. Proteoglycans including chondroitin sulfate, keratan sulfate, dermatan sulfate and heparan sulfate are major components of the extracellular matrices of many animal cell types. Clone 9.2.27 has been shown to react with human melanoma cells, glioma cells, and proliferating brain endothelial cells. It did not react with fetal melanocytes, neuroblastoma LA-N-1 cells or a variety of carcinoma, lymphoid, and fibroblastoid cell lines. Additionally, neither white nor gray matter from the medulla oblongata, cerebellum or spinal cord of a normal human adult reacted with 9.2.27. Clone 9.2.27 has also been used in functional studies to investigate the role of chondroitin sulfate proteoglycans in human tumor cell systems. It has been shown to block melanoma cell spreading, exhibit antiproliferative effects on glioma cells *in vitro* and suppress glioma tumor growth in athymic nude mice models.

A soluble extract derived from M14 human melanoma cells bound to *lens culinaris* lectin-Sepharose and depleted of fibronectin was used as immunogen.



Profile of M21 human melanoma cells analyzed by flow cytometry using clone 9.2.27 (Cat. No. 554275). Cells were incubated with either Purified Mouse anti-Chondroitin Sulfate or Purified Mouse IgG2a, κ Isotype Control, and detected with a FITC conjugated second step antibody (Cat. No. 555988).

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Tested During Development

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD



Recommended Assay Procedure:

Clone 9.2.27 specifically reacts with a chondroitin sulfate proteoglycan. By immunoprecipitation, it recognizes the fully processed 250 kDa core glycoprotein and a set of precursor polypeptides (210 kDa, 220 kDa, and 240 kDa).

Applications include immunoprecipitation (1 µg/1x10⁶ cells), flow cytometry (1-2 µg/ 1x10⁶ cells) and immunofluorescence microscopy of cultured cells.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
555571	Purified Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
556651	Purified Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. An isotype control should be used at the same concentration as the antibody of interest.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Bumol TF, Reisfeld RA. Unique glycoprotein-proteoglycan complex defined by monoclonal antibody on human melanoma cells. *Proc Natl Acad Sci U S A*. 1982; 79(4):1245-1249. (Biology)

Bumol TF, Walker LE, Reisfeld RA. Biosynthetic studies of proteoglycans in human melanoma cells with a monoclonal antibody to a core glycoprotein of chondroitin sulfate proteoglycans. *J Biol Chem*. 1984; 259(20):12733-12741. (Clone-specific: Electron microscopy, Immunofluorescence, Immunoprecipitation)

Cheresh DA, Honsik CJ, Staffileno LK, Jung G, Reisfeld RA. Disialoganglioside GD3 on human melanoma serves as a relevant target antigen for monoclonal antibody-mediated tumor cytotoxicity. *Proc Natl Acad Sci U S A*. 1985; 82(15):5155-5159. (Biology)

Morgan AC, Galloway DR, Reisfeld RA. Production and characterization of monoclonal antibody to a melanoma specific glycoprotein. *Hybridoma*. 1981; 1(1):27-36. (Immunogen: Immunoprecipitation)

Schrapp M, Bumol TF, Apelgren LD. Long-term growth suppression of human glioma xenografts by chemoimmunoconjugates of 4-desacetylvinblastine-3-carboxyhydrazide and monoclonal antibody 9.2.27. *Cancer Res*. 1992; 52(14):3838-3844. (Clone-specific: Immunofluorescence)

Spiro RC, Casteel HE, Laufer DM, Reisfeld RA, Harper JR. Post-translational addition of chondroitin sulfate glycosaminoglycans. Role of N-linked oligosaccharide addition, trimming, and processing. *J Biol Chem*. 1989; 264(3):1779-1786. (Biology)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

