



Monoclonal Anti-Chondroitin Sulfate (Type D)

Code: 370615

Lot. : 04801

Size: 0.2mg/vial

Description

Clone	MO-225
Isotype	Mouse IgM, κ-chain
Physical state	Liquid
Buffer	Phosphate buffered-saline (-) (PBS(-))
Stabilizer	None
Preservative	0.02% sodium azide
Purification	Purified by Cellulofine GCL-2000-sf gel filtration
Concentration	1.0mg/mL (Immunoglobulin fractions)
Package size	200µL/vial
Immunogen	chick embryo limb bud proteoglycan (PG-M)

Specificity:

Recognition & Localization;	The monoclonal antibodies produced against chick embryo limb bud proteoglycan (PG-M) were selected for their ability to recognize determinants on intact chondroitin sulfate chains. One of these monoclonal antibodies (designated MO-225) reacts with PG-M, chick embryo cartilage proteoglycans (PG-H, PG-Lb and PG-Lt) and bovine nasal cartilage proteoglycan but not with Swarm rat chondrosarcoma proteoglycan. The reactivity of PG-H to MO-225 is not affected by keratanase digestion but is completely abolished after chondroitinase digestion. Competitive binding analysis with various glycosaminoglycan samples indicate that the determinant recognized by MO-225 resides in a D-glucuronic acid 2-sulfate(β1→3)N-acetyl- galactosamine 6-sulfate disaccharide unit (D-unit) common to antigenic chondroitin sulfates. A tetrasaccharide trisulfate containing D-unit at the reducing end is the smallest chondroitin sulfate fragment that can inhibit the binding of the antibody to PG-H. Decreasing the size of a D-unit-rich chondroitin sulfate by hyaluronidase digestion results in progressive reduction in its inhibitory activity. The results suggest that the epitope has a requirement for a long stretch of a disaccharide-repeating structure for a better fit to the antibody.
Comment;	No cross-react with hyaluronic acid, heparan sulfate, dermatan sulfate and keratan sulfate.

Recommend Applications: The exact dilution must be determined by the researcher.

Immunohistochemistry	Paraffin section; 1: 50-100
ELISA	1: 50-1,000
Immunodot	1:100 (detect to about 0.001µg of Chondroitin Sulfate D, Code#: 400676)

Storage: Stored at 4°C until opened. Diluted material should be used within a week.
Avoid repeated freezing and thawing.

References:

- 1) Yamagata M., Kimata K., Oike Y., Tani K., Maeda N., Yoshida K., Shinomura Y., Yoneda M. and Suzuki S. *J. Biol. Chem.* **262**, 4146-4152 (1987)
- 2) Yamagata M., Suzuki S., Akiyama S. K., Yamada K. M. and Kimata K. *J. Biol. Chem.* **264**, 8012-8018 (1989)

Note: For *in vitro* research use only, not for diagnostic or therapeutic use. This product is not medical device.
This product is warranted for a period of one year after date of receipt when storage and usage conditions are adhered to as described on the package insert.