

Product Information

Monoclonal Anti-NG2/CSPG4 antibody produced in mouse clone 2164B6, purified from hybridoma cell culture

Product Number **SAB4200621**

Product Description

Monoclonal Anti-NG2/CSPG4 (mouse IgG1 isotype) is derived from the hybridoma 2164B4 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a recombinant extracellular portion of human NG2 proteoglycan (GeneID: 1464). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-NG2/CSPG4 recognizes human NG2. The product may be used in several immunochemical techniques including flow cytometry and immunocytochemistry.

NG2, also known as CSPG4 and high molecular mass melanoma-associated antigen (HMW-MAA), is a large integral membrane, cell surface type I transmembrane protein that is covalently modified with CS glycosaminoglycan. It has been indicated to play a central role in linking multiple oncogenic pathways required for malignant progression.¹ NG2/CSPG4 expression in radial growth phase (RGP) human melanomas facilitates migration, protease activation, and epithelial to mesenchymal transition, indicating that it may be very important in primary tumors for facilitating progression from a radial to vertical growth phase phenotype. It facilitates sustained, high-level activation of key survival and growth pathways, in particular integrin-regulated focal adhesion kinase (FAK), ERK 1,2, and PI3K/AKT pathways. Therefore, this cell surface proteoglycan was suggested as a central factor in controlling the consequences of microenvironment on melanoma progression, and thus, its therapeutic potential is likely to be considerable for delaying progression and/or recurrence in patients with melanoma.²⁻³ NG2 has also been suggested as a new target for antibody-based immunotherapy of triple-negative breast cancer.⁴

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunofluorescence: a working concentration of 2.5-5 µg/mL is recommended using A375 cells.

Flow Cytometry: A working dilution of 2.5-5 µg /test is recommended using SK-Mel-28 cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Lord, M.S., and Whitelock, J.M., *FEBS. J.*, **280**, 2490-2510 (2013).
2. Price, M.A., et al., *Pigment Cell Melanoma Res.*, **24**, 1148-1157 (2011).
3. Wang, X., et al., *Curr. Mol. Med.*, **10**, 419-429 (2010).
4. Wang, X., et al., *J. Natl. Cancer Inst.*, **102**, 1496-1512 (2010).

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