

# Neural/Glial Antigen 2 (NG2) Monoclonal Antibody (9.2.27), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	9.2.27
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_10870987

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	-
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	10 µg/mL	1 Publication
Flow Cytometry (Flow)	0.125 µg/test	-
Immunoprecipitation (IP)	Assay-Dependent	-

## Product Specific Information

**Description:** This 9.2.27 monoclonal antibody reacts with human neural/glial antigen 2, which is also known as melanoma chondroitin sulfate proteoglycan (MCSP). This antigen is composed of a 250 kDa N-linked glycoprotein and a >450 kDa proteoglycan. NG2 is present on the surface of >90% of malignant melanomas in addition to some non-melanomic tumors. Moreover, NG2 is expressed on glioma cells, as well as on developing and adult oligodendrocyte precursor cells. Studies have demonstrated the involvement of this protein in tumor cell proliferation, adhesion, migration, and invasion. NG2 also functions as a coreceptor for alpha4beta1 integrin. Finally, expression of NG2 can be used as a prognostic marker for disorders such as acral lentiginous melanoma and infantile acute myeloid leukemia.

The 9.2.27 antibody has been reported to suppress melanoma tumor growth.

**Applications Reported:** This 9.2.27 has been reported for use in flow cytometric analysis, immunoprecipitation, immunohistochemical staining of formalin-fixed paraffin embedded tissue (IHC-P), and immunocytochemical staining of fixed cells (ICC).

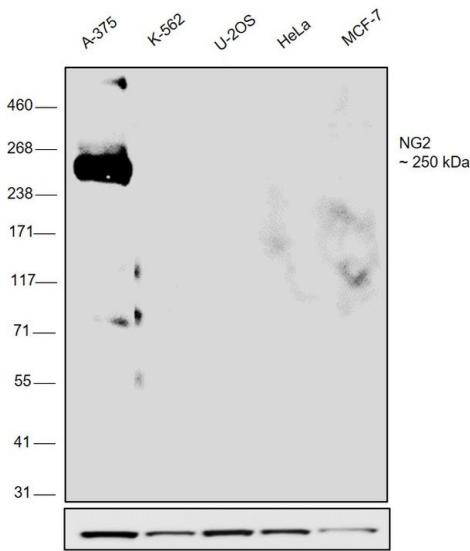
**Applications Tested:** This 9.2.27 antibody has been tested by immunocytochemistry on methanol-fixed A375 cells at less than or equal to 10 µg/mL and by flow cytometric analysis on A375 cells at less than or equal to 0.125 µg/test. A test is defined as

the amount (ug) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10e5 to 10e8 cells/test. It is recommended that this antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

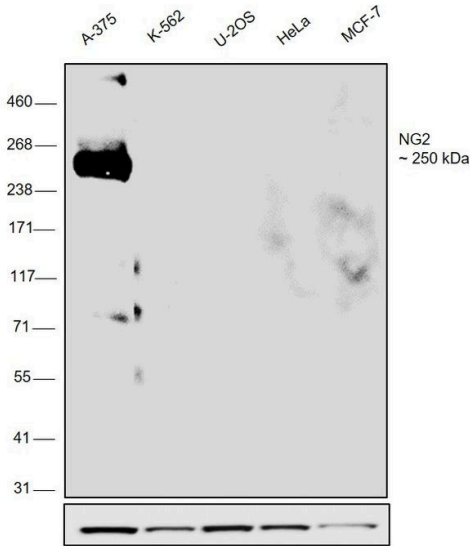
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2  $\mu$ m post-manufacturing filtered.



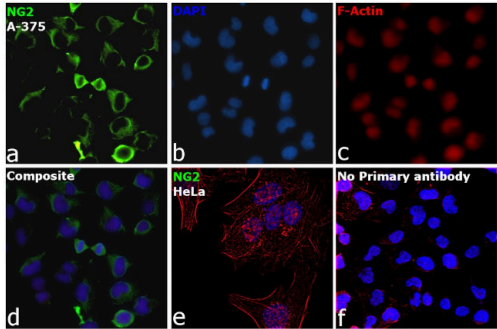
**Neural/Glial Antigen 2 (NG2) Antibody (14-6504-82) in WB**

Western blot was performed using Anti-NG2 Monoclonal Antibody (Product # 14-6504-82) and a band at ~250 kDa corresponding to NG2 was observed only in A-375 when compared to other cell lines which are reported negative. Whole cell extracts (30 µg lysate) of A-375 (Lane 1), K-562 (Lane 2), U-2 OS (Lane 3), HeLa (Lane 4), MCF-7 (Lane 5) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



**Neural/Glial Antigen 2 (NG2) Antibody (14-6504-82)**

Antibody specificity was demonstrated by detection of differential basal expression of the target across tissue tested owing to their inherent genetic constitution. Relative expression of NG2 was observed in A-375 cell line in comparison to K-562, U-2 OS, HeLa and MCF-7. Relative expression was also observed in Mouse Skin, Mouse Brain and Rat Brain in comparison to Mouse Adipose using Anti-NG2 Monoclonal antibody (Product # MA5-24247) in Western Blot. {RE}



**Neural/Glial Antigen 2 (NG2) Antibody (14-6504-82)**

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using Anti-NG2 Monoclonal Antibody (Product # 14-6504-82) shows increased expression of NG-2 in A-375 cell line when compared to HeLa cell line. {RE}

Immunohistochemistry (2)

Frontiers in medicine	Year 2023
<b>Follicular dendritic cell differentiation is associated with distinct synovial pathotype signatures in rheumatoid arthritis.</b>	Species Human
"14-6504-82 was used in Immunohistochemistry to demonstrate that CNA.42+ FDCs distinctively express the pericyte /fibroblast-associated markers PDGFR-, NG2, and Thy-1 in the synovial perivascular space but not in established follicles."	
Authors: El Shikh MEM,El Sayed R,Aly NAR,Prediletto E,Hands R,Fossati-Jimack L,Bombardieri M,Lewis MJ,Pitzalis C	

Fluids and barriers of the CNS	Year 2018
<b>Tunneling nanotubes evoke pericyte/endothelial communication during normal and tumoral angiogenesis.</b>	
"Published figure using Neural/Glial Antigen 2 (NG2) monoclonal antibody (Product # 14-6504-82) in Immunofluorescence"	
Authors: Errede M,Mangieri D,Longo G,Girolamo F,de Trizio I,Vimercati A,Serio G,Frei K,Perris R,Virgintino D	

Immunocytochemistry (1)

Fluids and barriers of the CNS	Year 2018
<b>Tunneling nanotubes evoke pericyte/endothelial communication during normal and tumoral angiogenesis.</b>	
"Published figure using Neural/Glial Antigen 2 (NG2) monoclonal antibody (Product # 14-6504-82) in Immunofluorescence"	
Authors: Errede M,Mangieri D,Longo G,Girolamo F,de Trizio I,Vimercati A,Serio G,Frei K,Perris R,Virgintino D	

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