Product Datasheet

Spectrin beta 1 Antibody (4C3)
NB300-574

Unit Size: 100uL

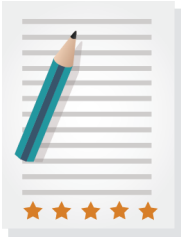
Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 2

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB300-574

Updated 9/9/2025 v.20.1



NB300-574

Spectrin beta 1 Antibody (4C3)

Product Information

Unit Size	100uL
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4C3
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Unpurified
Buffer	Ascites diluted with PBS

Product Description

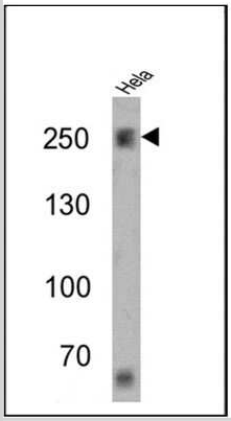
Description	Novus Biologicals Mouse Spectrin beta 1 Antibody (4C3) (NB300-574) is a monoclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-Spectrin beta 1 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	6710
Gene Symbol	SPTB
Species	Human, Mouse, Rat, Canine
Reactivity Notes	Canine reactivity reported in scientific literature (PMID: 24505439). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Specificity/Sensitivity	Detects spectrin from erythrocytes, brain and muscle cells. This has been shown to specifically detect the two known alternatively spliced forms of spectrin, beta-1 epsilon-1, present in erythrocytes, and beta-1 epsilon-2, present in nerve and striated muscle cells. It does not cross-react with alpha-2 spectrin or either of the fodrin subunits.
Immunogen	Purified human erythrocyte beta-1 spectrin.

Product Application Details

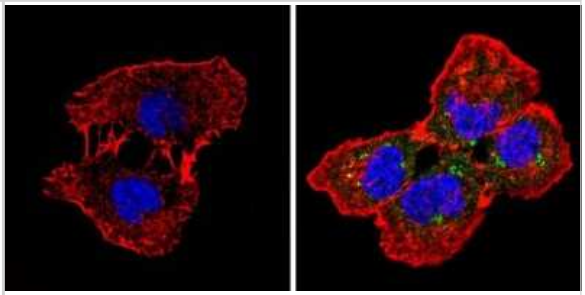
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:100, Flow Cytometry 0.5 - 2 ug, Immunohistochemistry 1:20 - 1:200, Immunocytochemistry/ Immunofluorescence 1:10 - 1:200, Immunohistochemistry-Paraffin 1:20 - 1:200, Immunohistochemistry-Frozen 1:20 - 1:200
Application Notes	WB: Detects an approx. 246 kDa protein representing beta-1 spectrin in rat skeletal muscle homogenate. IF: Staining of beta-1 spectrin in rat skeletal muscle fibers results in intense staining of the sarcolemma. Antigen integrity can be compromised if aldehyde fixatives are left in contact with the protein for extended periods of time. If paraformaldehyde is used as a fixative, exposure should be limited to 5 minutes or less of no more than a 2% solution. IHC usage was reported in scientitic literature (PMID: 9142435). IHC-Fr usage was reported in scientific literature (PMID: 24505439).

Images

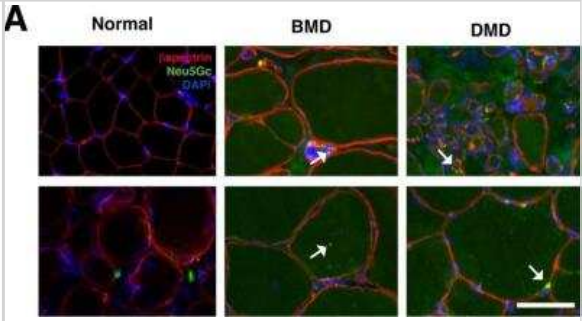
Western Blot: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of 25 ug of Hela cell lysates.



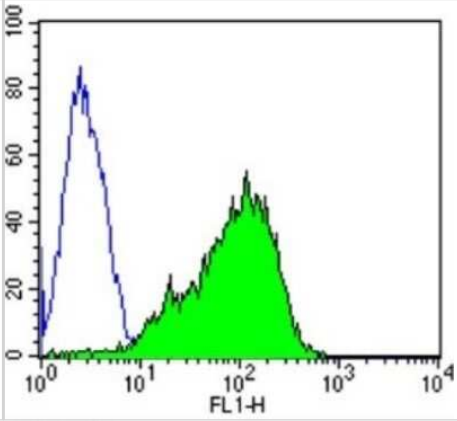
Immunocytochemistry/Immunofluorescence: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Spectrin beta-1 (green) showing staining in the cytoplasm of A431 cells (right) compared to a negative control without primary antibody (left).



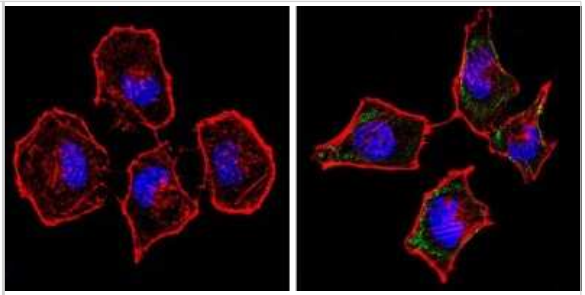
Immunohistochemistry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Neu5Gc co-staining with beta spectrin, CD11b, CD8 or Pax7 in normal, BMD or DMD human muscle. Otherwise normal, Becker muscular dystrophy (BMD) and Duchenne muscular dystrophy (DMD) muscle biopsy sections were stained for Neu5Gc (green),Spectrin beta 1 (red) and DAPI (blue). Arrows indicate Neu5Gc puncta in cytoplasmic or perimembranous regions of BMD and DMD skeletal myofibers. Bar is 50 um for all panels. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0088226) licensed under a CC-BY license.



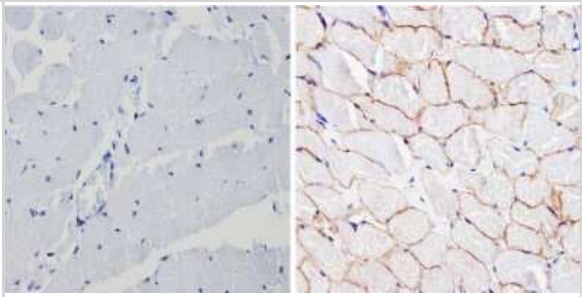
Flow Cytometry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Hela cells compared to an isotype control (blue).



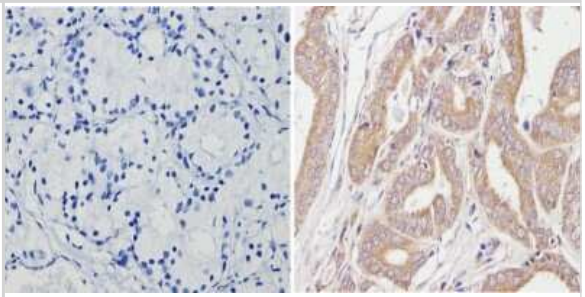
Immunocytochemistry/Immunofluorescence: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Spectrin beta-1 (green) showing staining in the cytoplasm of Hela cells (right) compared to a negative control without primary antibody (left).



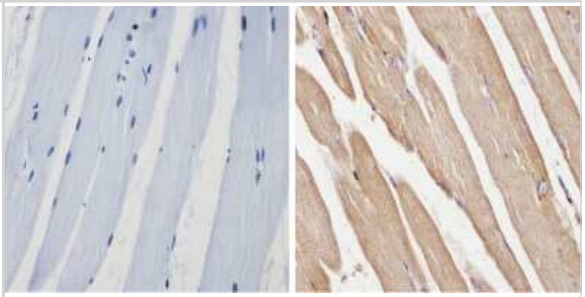
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the membrane of Human skeletal muscle (right) compared with a negative control in the absence of primary antibody (left).



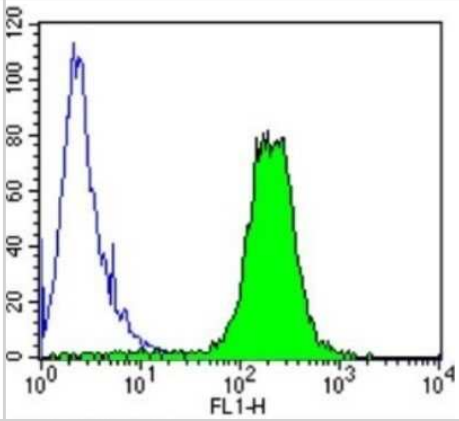
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the cytoplasm of Human prostate carcinoma (right) compared with a negative control in the absence of primary antibody (left).



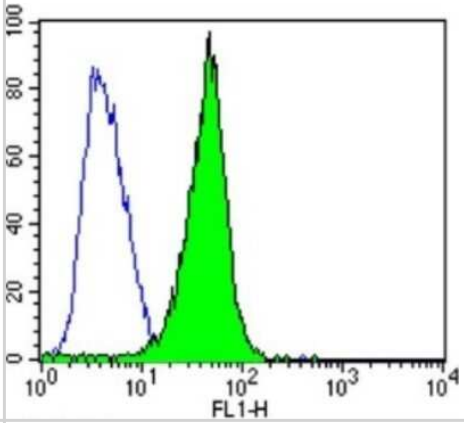
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the cytoplasm and membrane of Mouse skeletal muscle (right) compared with a negative control in the absence of primary antibody (left).



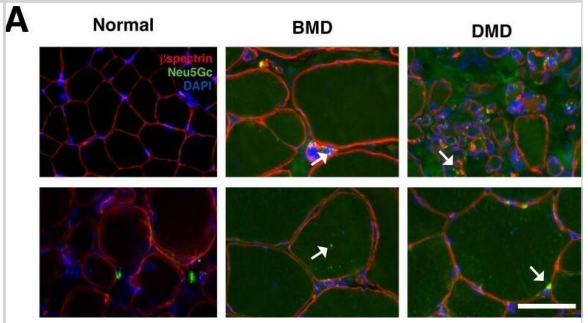
Flow Cytometry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of SH-SY5Y cells compared to an isotype control (blue).



Flow Cytometry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of NIH/3T3 cells compared to an isotype control (blue).



Immunocytochemistry/ Immunofluorescence: Spectrin beta 1 Antibody (4C3) [NB300-574] - Neu5Gc co-staining with β spectrin, CD11b, CD8 or Pax7 in normal, BMD or DMD human muscle.(A) Otherwise normal, Becker muscular dystrophy (BMD) & Duchenne muscular dystrophy (DMD) muscle biopsy sections were stained for Neu5Gc (green), β spectrin (red) & DAPI (blue). Arrows indicate Neu5Gc puncta in cytoplasmic or perimembranous regions of BMD & DMD skeletal myofibers. (B) DMD muscle was co-stained for Neu5Gc & CD11b, CD8 or Pax7 (and DAPI). Bar is 50 µm for all panels in A & B. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/24505439), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Geiger M, Janes T, Keshavarz H et al. A C-peptide complex with albumin and Zn2+ increases measurable GLUT1 levels in membranes of human red blood cells Sci Rep 2020-10-15 [PMID: 33060722] (WB, Human)

Martin PT, Golden B, Okerblom J et al. A Comparative Study of N-glycolylneuraminic Acid (Neu5Gc) and Cytotoxic T Cell (CT) Carbohydrate Expression in Normal and Dystrophin-Deficient Dog and Human Skeletal Muscle. PLoS ONE 2014-02-07 [PMID: 24505439] (IHC-Fr, Canine)

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Products Related to NB300-574

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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