

# Product Datasheet

## Spectrin beta 1 Antibody (4C3)

### NB300-574

Unit Size: 100uL

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

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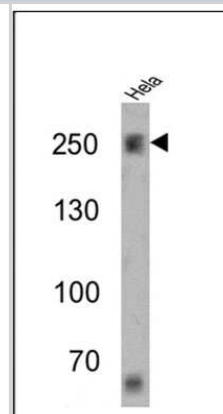
**NB300-574****Spectrin beta 1 Antibody (4C3)**

<b>Product Information</b>	
<b>Unit Size</b>	100uL
<b>Concentration</b>	This product is unpurified. The exact concentration of antibody is not quantifiable.
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	4C3
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Unpurified
<b>Buffer</b>	Ascites diluted with PBS
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	6710
<b>Gene Symbol</b>	SPTB
<b>Species</b>	Human, Mouse, Rat, Canine
<b>Reactivity Notes</b>	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.
<b>Specificity/Sensitivity</b>	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.
<b>Immunogen</b>	Purified human erythrocyte beta-1 spectrin.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
<b>Recommended Dilutions</b>	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
<b>Application Notes</b>	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 scientific literature (PMID: 9142435). IHC-Fr usage was reported in scientific literature (PMID: 24505439).

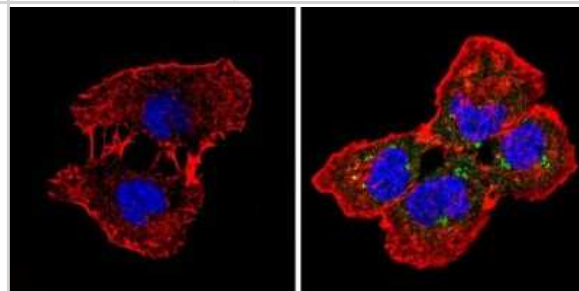


## Images

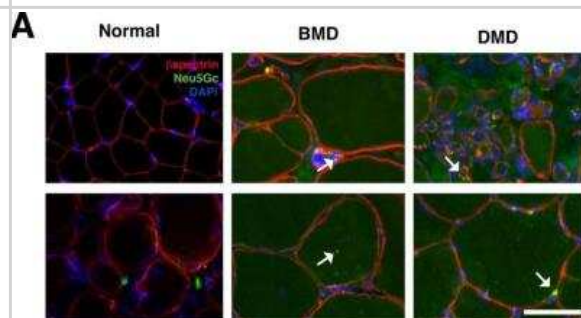
Western Blot: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of 25 ug of Hela cell lysates.



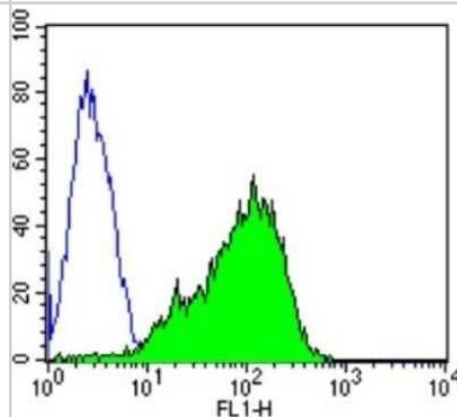
Immunocytochemistry/Immunofluorescence: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Spectrin beta-1 (green) showing staining in the cytoplasm of A431 cells (right) compared to a negative control without primary antibody (left).



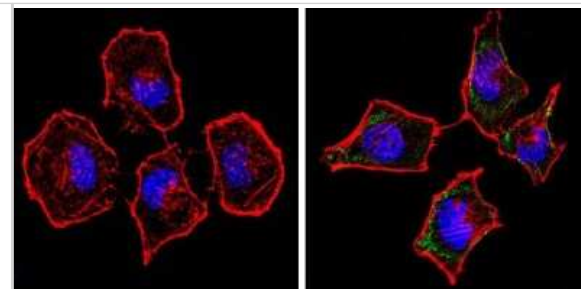
Immunohistochemistry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Neu5Gc co-staining with beta spectrin, CD11b, CD8 or Pax7 in normal, BMD or DMD human muscle. Otherwise normal, Becker muscular dystrophy (BMD) and Duchenne muscular dystrophy (DMD) muscle biopsy sections were stained for Neu5Gc (green), 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.



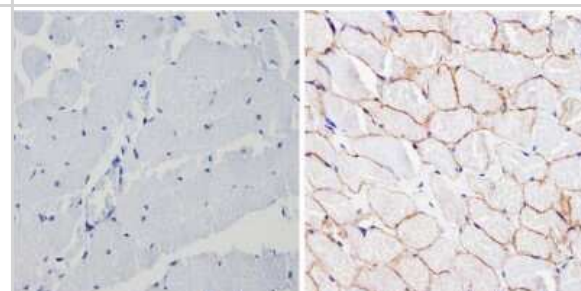
Flow Cytometry: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Hela cells compared to an isotype control (blue).



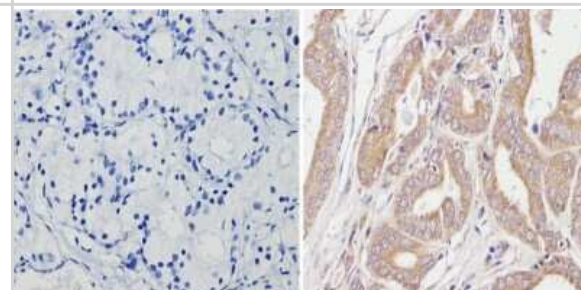
Immunocytochemistry/Immunofluorescence: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis of Spectrin beta-1 (green) showing staining in the cytoplasm of Hela cells (right) compared to a negative control without primary antibody (left).



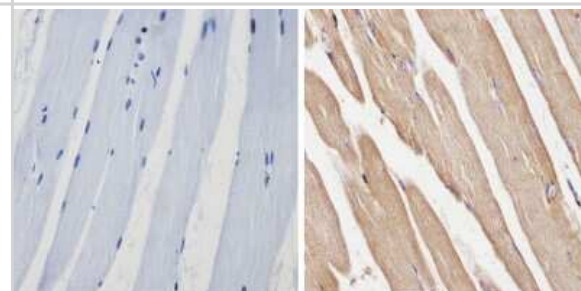
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the membrane of Human skeletal muscle (right) compared with a negative control in the absence of primary antibody (left).



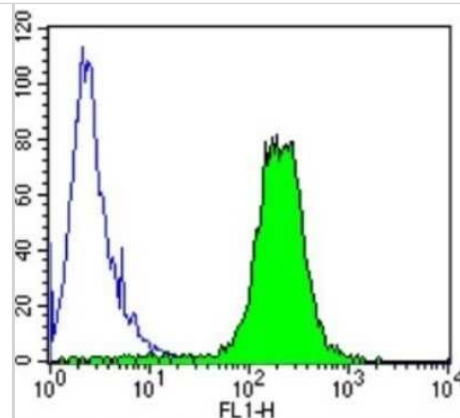
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the cytoplasm of Human prostate carcinoma (right) compared with a negative control in the absence of primary antibody (left).



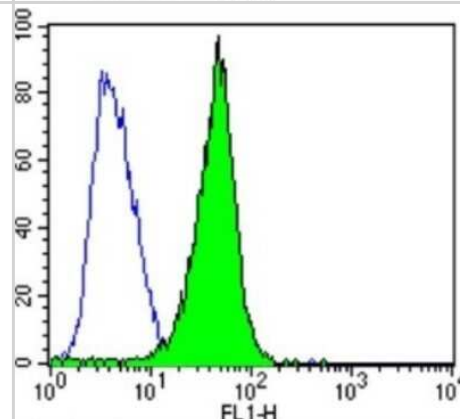
Immunohistochemistry-Paraffin: Spectrin beta 1 Antibody (4C3) [NB300-574] - Analysis showing positive staining in the cytoplasm and membrane of Mouse skeletal muscle (right) compared with a negative control in the absence of primary antibody (left).



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).



## Publications

Geiger M, Janes T, Keshavarz H et al. A C-peptide complex with albumin and Zn<sup>2+</sup> 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**

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NBP1-87596PEP	Spectrin beta 1 Recombinant Protein Antigen

### **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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