

Product Datasheet

Integrin beta 1/CD29 Antibody (EP1041Y) NB110-57123

Unit Size: 0.1 ml

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

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NB110-57123**Integrin beta 1/CD29 Antibody (EP1041Y)**

Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	EP1041Y
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Protein A purified
Buffer	59% PBS (pH 7.2), 0.05% BSA and 40% Glycerol
Product Description	
Host	Rabbit
Gene ID	3688
Gene Symbol	ITGB1
Species	Human, Mouse, Rat
Marker	Stem Cell Marker
Immunogen	A synthetic peptide corresponding to the residue near the C-terminal of human Integrin beta-1 (CD29) was used as immunogen.
Notes	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:1000-10000, Flow Cytometry 1:70, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:250-500
Application Notes	In Western blot this antibody detects a band at approximately 140-150 kDa. Immunofluorescence reported in literature (PMID: 22269650).

Publications

Shen Congcong, Sun Linlin, Zhu Ningwen et al. Kindlin-1 contributes to EGF-induced re-epithelialization in skin wound healing. *International Journal of Molecular Medicine* 2017-01-01 [PMID: 28290610] (WB, WB, Mouse)

Sakamuri SSV, Takawale A, Basu R, Fedak PWM et al. Differential Impact of Mechanical Unloading on Structural and Non-Structural Components of the Extracellular Matrix in Advanced Human Heart Failure *Translational Research* 2016-02-23 [PMID: 26963743] (IHC-P, WB, Human)

Tsunaki Hongu, Yuji Funakoshi, Shigetomo Fukuhara et al. Arf6 regulates tumour angiogenesis and growth through HGF-induced endothelial beta1 integrin recycling. *Nature Communications* 2015-01-01 [PMID: 26239146] (WB, Human, Mouse)

Naydenov NG, Feygin A, Wang L et al. N-Ethylmaleimide-sensitive Factor Attachment Protein A (ASnap) Regulates Matrix Adhesion and Integrin Processing in Human Epithelial Cells. *J Biol Chem* 2014-01-24 [PMID: 24311785] (ICC/IF, WB, Human)

Rankin CR, Hilgarth RS, Leoni G et al. Annexin A2 Regulates beta1 Integrin Internalization and Intestinal Epithelial Cell Migration. *J Biol Chem* 2013-05-24 [PMID: 23558678] (WB, Human)

Bell AJ, Satchwell TJ, Heesom KJ et al. Protein Distribution during Human Erythroblast Eucleation *In Vitro PLoS One* 2013-01-01 [PMID: 23565219] (WB, Human)

Naydenov NG, Brown B, Harris G, Dohn MR, Morales VM, Baranwal S, Reynolds AB, Ivanov AI. A Membrane Fusion Protein alphaSNAP Is a Novel Regulator of Epithelial Apical Junctions. *PLoS One*;7(4). 2012-01-01 [PMID: 22485163] (ICC/IF, WB, Human)

Altrock E, Muth CA, Klein G et al. The significance of integrin ligand nanopatterning on lipid raft clustering in hematopoietic stem cells. *Biomaterials*. 2012-01-21 [PMID: 22269650]





Immunohistochemistry Protocol for Integrin beta 1 Antibody (NB110-57123)

Immunohistochemistry Protocol for Paraffin-embedded Tissues

1. Solutions and reagents

1.1. Xylene

1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)

1.3. Washing buffer:

TBST washing buffer: 1XTBS/0.1% Tween-20

To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH₂O. Adjust pH to 7.6.Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH₂O. Add 1 ml Tween-20 and mix well.1.4. Distilled water (dH₂O)

1.5. Antigen Retrieval Solution:

0.01M Sodium Citrate Buffer, pH 6.0

To prepare stock solutions:

Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C₆H₈O₇.H₂O) in 1 liter of dH₂O.Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C₆H₅Na₃O₇.2H₂O) in 1 liter of dH₂O.Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH₂O. Adjust pH to 6.0.

1.6. 3% Hydrogene Peroxide

1.7. Blocking buffer:

PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)

1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)

1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)

2. Protocol**2.1. Deparaffinization/Rehydration**

2.1.1. Heat slides in an oven at 65C for 1 hour.

2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H₂O and a TBST wash for 5 min on a shaker.**2.2. Antigen Retrieval**

2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.

2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH₂O.

2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.

2.2.4. Allow to cool down, without cover, for 20 min.

2.3. Staining

2.3.1. Wash slides with TBST for 5 min on a shaker.

2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.

2.3.3. Wash slides three times with TBST (3 min each on a shaker).

2.3.4. Block slides with the blocking solution for 1 hour.

2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.

2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).

2.3.7. Wash slides three times with TBST (3 min each on a shaker).

2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.

2.3.9. Wash slides three times with TBST (3 min each on a shaker).

2.3.10. Add freshly prepared DAB substrate to the sections.

2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).

2.3.12. Rinse sections with water.

2.3.13. Counterstain with Hematoxylin.

2.3.14. Rinse sections with water.

2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).

2.3.16. Mount coverslips on slides using Permount medium.



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