



# Anti CLEC-2 (2A2B10)

## Background

C-type lectin-like receptor 2 (CLEC-2) has been identified as a receptor for the platelet-activating snake venom rhodocytin[1]. An endogenous ligand of CLEC-2 is the membrane protein podoplanin (PDPN), which is expressed on the surface of certain types of tumor cells and lymphatic endothelial cells (LECs)[2,3]. Deletion of CLEC-2 from platelets in mice results in death just after birth due to lung malformation and blood/lymphatic vessel separation[4]. CLEC-2 protein is highly expressed in platelets and megakaryocytes and at lower levels in liver Kupffer cells and liver sinusoidal endothelial cells in humans[5-8]. In mice, CLEC-2 is also expressed in neutrophils, dendritic cells, and macrophages at low levels[9-13].

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Product type	Primary Antibody
Immunogen	mouse CLEC-2
Raised in	Rat
Clone number	2A2B10 (2A2B10 was made by Cell engineering corporation. )
Isotype	IgG2a, $\lambda$
Source	Culture supernatant
Purification	Protein G column
Buffer	PBS
Concentration	1 mg/mL
Volume	100 $\mu$ L
Label	Unlabeled
Specificity	mouse CLEC-2
Storage	Store at -20 $^{\circ}$ C

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Recommended Dilutions	Western blotting (1 : 1,000) , Immunohistochemistry (Frozen section, 1 : 500), Flowcytometry (1 : 200)
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Other applications have not been tested or not reactive.  
Optimal dilutions/concentrations should be determined by the end user.

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## Reference

- 1.Suzuki-Inoue K et al., Blood. 2006; 107: 542-549.
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- 4.Tsukiji N et al., Blood. 2018 Sep 13;132(11):1167-1179.
- 5.Chaipan C et al., J Virol. 2006;80:8951–60.
- 6.Tang T et al., Nat Biotechnol. 2010;28:749–55.
- 7.Nakamura-Ishizu A et al., J Exp Med. 2015;212:2133–46.
- 8.Tamura S et al., Blood. 2016;127:1701–10.
- 9.Kerrigan AM et al., J Immunol. 2009;182:4150–7.
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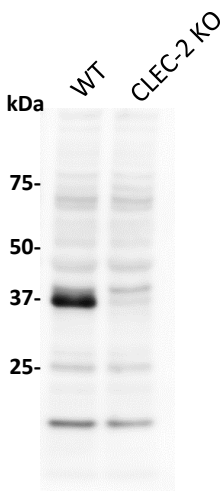


Fig 1. Western blotting  
 Sample: platelet lysate  
 Primary antibody: 1 µg/mL 2A2B10 in blocking solution  
 Secondary antibody: anti-rat IgG-HRP

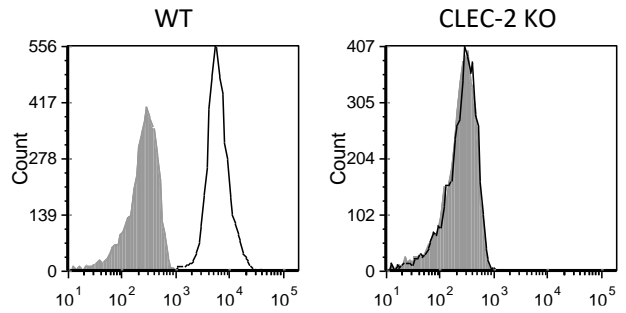


Fig 2. Flowcytometry  
 Sample: platelet  
 Primary antibody: 5 µg/mL 2A2B10 in PBS  
 Secondary antibody: anti-rat IgG-Alexa Flour-488

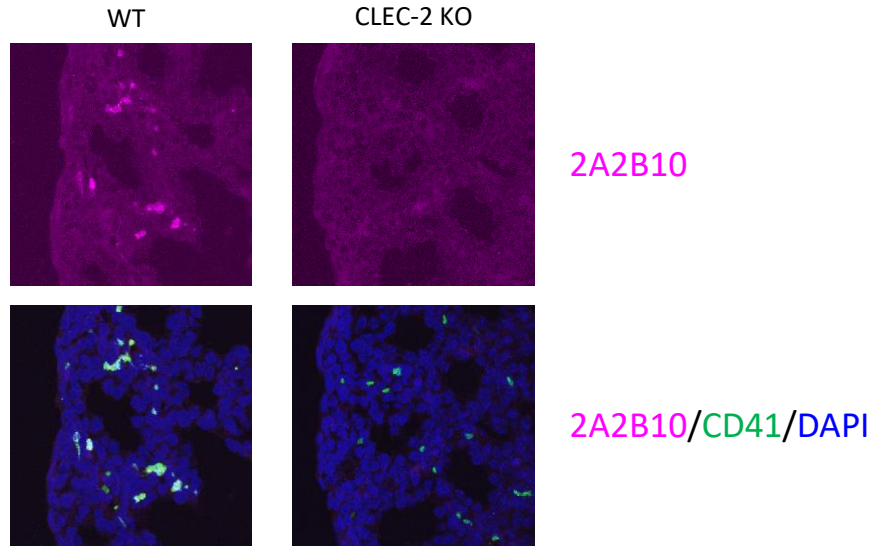


Fig 3. Immunohistochemistry  
 Fetal lung tissues were fixed with 4% formaldehyde in PBS and embedded in compound for frozen section.  
 Sample: fetal lung  
 Primary antibody: 2 µg/mL 2A2B10 in blocking buffer, anti-CD41-Alexa Flour-488  
 Secondary antibody: anti-rat IgG-Alexa Flour-594  
 Circulating platelets were co-stained with 2A2B10 and platelet marker CD41 antibody in wild type fetus.  
 2A2B10 did not react with CLEC-2 KO platelet.

For research use only, Not for diagnostic use.



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