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## Datasheet for ABIN1401364

## anti-PDZRN3 antibody (Alexa Fluor 488)

Overview		
Quantity:	100 μL	
Target:	PDZRN3	
Reactivity:	Human, Mouse, Rat	
Host:	Rabbit	
Clonality:	Polyclonal	
Conjugate:	This PDZRN3 antibody is conjugated to Alexa Fluor 488	
Application:	Western Blotting (WB), Immunofluorescence (Paraffin-embedded Sections) (IF (p))	
Product Details		
Immunogen:	KLH conjugated synthetic peptide derived from human SEMCAP3/LNX3	
Isotype:	IgG	
Cross-Reactivity:	Human, Mouse, Rat	
Purification:	Purified by Protein A.	
Target Details		
Target:	PDZRN3	
Alternative Name:	SEMCAP3 (PDZRN3 Products)	
Background:	Synonyms: Ligand of Numb protein X 3, likely ortholog of mouse semaF cytoplasmic domain associated protein 3, LNX3, PDZ domain containing ring finger 3, Protein SEMACAP3,	
	SEMACAP3, Semaphorin cytoplasmic domain associated protein, PZRN3_HUMAN.	

Background: PDZRN3 contains a RING-finger motif in its N-terminal region, two PDZ domains in

its central region and a consensus-binding motif for PDZ domains at its C-terminus. It was identified in silico as a homolog of the protein known as LNX1 or SEMCAP1, which possesses ubiquitin ligase activity and binds the membrane protein Semaphorin 4C. However, PDZRN3 itself has not previously been characterized. We have now evaluated the properties and functions of PDZRN3. The PDZRN3 gene was shown to be expressed in various human tissues including the heart, skeletal muscle and liver and its expression in mouse skeletal muscle was developmentally regulated. Both the differentiation of C2C12 mouse skeletal myoblasts into myotubes and injury-induced muscle regeneration in vivo were found to be accompanied by upregulation of PDZRN3. The differentiation-associated increase in the expression of PDZRN3 in C2C12 cells follows that of myogenin and precedes that of myosin heavy chain. Depletion of PDZRN3 by RNA interference inhibited the formation of myotubes as well as the associated upregulation of myosin heavy chain in C2C12 cells. Our data suggest that PDZRN3 plays an essential role in the differentiation of myoblasts into myotubes by acting either downstream or independently of myogenin.

Gene ID: 23024

Pathways: Skeletal Muscle Fiber Development

### **Application Details**

Application Notes: IF(IHC-P) 1:50-200

Restrictions: For Research Use only

#### Handling

Format:	Liquid
Concentration:	1 μg/μL
Buffer:	Aqueous buffered solution containing 0.01M TBS (pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles.

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Expiry Date:

12 months