

SEMCAP3 Rabbit pAb

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Catalog # AP59176

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UPQ7
Predicted	Rat, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119596
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SEMCAP3/LNX3
Epitope Specificity	951-1066/1066
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 up-regulation 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 up-regulation 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.

Additional Information

Gene ID	23024
Other Names	E3 ubiquitin-protein ligase PDZRN3, 2.3.2.27, Ligand of Numb protein X 3, PDZ domain-containing RING finger protein 3, RING-type E3 ubiquitin transferase PDZRN3, Semaphorin cytoplasmic domain-associated protein 3, Protein SEMCAP3, PDZRN3, KIAA1095, LNX3, SEMCAP3

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PDZRN3
Synonyms	KIAA1095, LNX3, SEMCAP3
Function	E3 ubiquitin-protein ligase. Plays an important role in regulating the surface level of MUSK on myotubes. Mediates the ubiquitination of MUSK, promoting its endocytosis and lysosomal degradation. Might contribute to terminal myogenic differentiation.
Cellular Location	Synapse {ECO:0000250 UniProtKB:Q69ZS0}. Cytoplasm {ECO:0000250 UniProtKB:E7FDW2}. Note=Localizes to the postsynaptic region of neuromuscular junctions. {ECO:0000250 UniProtKB:Q69ZS0}
Tissue Location	Widely expressed, including in the heart, skeletal muscle and liver and, at lower levels, in the brain, colon, small intestine, placenta and lung. Down-regulated in ovarian serous papillary tumors.

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.