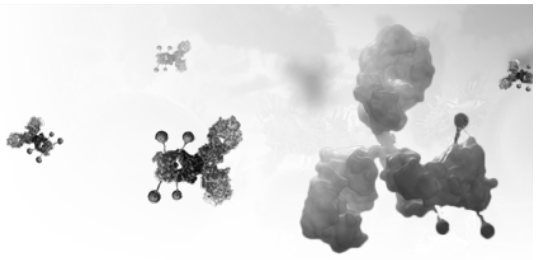

Rat Anti-MARVELD2 monoclonal antibody, clone O65 (CABT-RM178)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Specifically detects murine Tricellulin. It targets an epitope within the N-terminal cytoplasmic domain.
Target	MARVELD2
Immunogen	GST-tagged recombinant fragment corresponding to 150 amino acids from the N-terminal region of murine Tricellulin.
Isotype	IgG2a, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	O65
Purification	Protein G purified
Conjugate	unconjugated
Applications	ICC, IF, IHC, WB
Molecular Weight	~64 kDa observed; 63.66 kDa calculated. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl

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Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	MARVEL domain-containing protein 2 is encoded by the Marveld2 gene in murine species. Tricellulin is a multi-pass membrane protein that is predominantly detected in small intestine, lung, and kidney and lower levels are detected in liver, testis, and brain. It is a member of the tight junction-associated Marvel protein family, which consists of occludin, tricellulin, and Marveld3. Tricellulin contains four transmembrane domains, two extracellular loops and large amino- and carboxyl-terminal cytoplasmic domains. It plays a role in the formation of tricellular tight junctions and of epithelial barriers and regulates F-actin organization through Cdc42. It is shown to bind to the Cdc42 guanine-nucleotide-exchange factor (GEF) Tuba via its N-terminal cytoplasmic domain and activate Cdc42, thereby accelerating organization of F-actin fibers at tricellular contacts. Tricellulin-knockdown epithelial cells exhibit irregular polygonal shapes with curved cell borders and impaired organization of F-actin fibers around tricellular contacts during cell-cell junction formation. Tricellulin is reported to be essential for normal hearing via its role in the separation of the endolymphatic and perilymphatic spaces of the organ of Corti in the inner ear, and for normal survival of hair cells in the organ of Corti. Mutations in Marveld2 gene are reported to cause nonsyndromic familial deafness.
Keywords	MARVELD2; MARVEL domain containing 2; deafness, autosomal recessive 49; DFNB49, MARVEL (membrane associating) domain containing 2; MRVLDC2; MARVEL domain-containing protein 2; FLJ30532; TRIC; tricellulin; MARVEL (membrane-associating) domain containing 2; Tric; DFNB49; MARVD2; MRVLDC2

GENE INFORMATION

Entrez Gene ID	218518
UniProt ID	Q3UZP0

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