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DATA SHEET

Mouse Anti-Cingulin [G6]: MC0648, MC0648RTU7

Intended Use: For Research Use Only

Description: A protein component of the submembrane plaque of tight junctions (TJ), contains globular and coiled-coil domains and interacts in vitro with several TJ and cytoskeletal proteins, including the PDZ protein ZO-1. Deletion of the ZO-1 interaction motif (ZIM) decreases but does not abolish colocalization with ZO-1. Diffusion of solutes is prevented across certain barriers by the formation of tight junction seals. Occludin and Cingulin interact with other proteins to direct the formation and regulation of tight junctions. Cingulin binding has also been shown to inhibit RhoA activation and signaling with increased Cingulin expression in confluent cells, causing downregulation of RhoA by inhibiting GEF-H1/Lfc. Probably plays a role in the formation and regulation of the tight junction (TJ) paracellular permeability barrier. Localized on the cytoplasmic face of tight junctions of polarized epithelia and some endothelia. Expressed in pancreas, kidney, liver, bladder, small intestine and lung, but not in skeletal muscle, placenta, brain or heart.

Specifications:

Clone:	G6
Source:	Mouse
Isotype:	IgG2a/k
Reactivity:	Human
Immunogen:	Human Cingulin fragment C-terminus aa 821-1000
Localization:	Membrane
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB

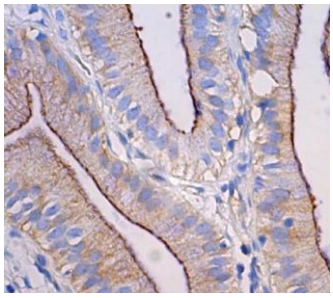
Package:

Description	Catalog No.	Size
Cingulin [G6] Concentrated	MC0648	1 ml
Cingulin [G6] Prediluted	MC0648RTU7	7 ml

IHC Procedure*:

Positive Control Tissue:	Gall bladder, small intestine
Concentrated Dilution:	25-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human gall bladder stained with anti-Cingulin showing apical membrane staining of glandular cells

References:

1. Occludin and tricellulin facilitate formation of anastomosing tight-junction strand network to improve barrier function. Saito, AC. et al. Mol Biol Cell, 2021.
2. Motif affinity and mass spectrometry proteomic approach for the discovery of cellular AMPK targets: identification of mitochondrial fission factor as a new AMPK substrate. Ducommun, S. et al. Cellular signalling. 27: 978-88, 2015.

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