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Anti-RCAN1/Dscr1 (central region) Antibody

Catalog # AN1936

Product Information

Application	WB, ICC
Primary Accession	P53805
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	28079

Additional Information

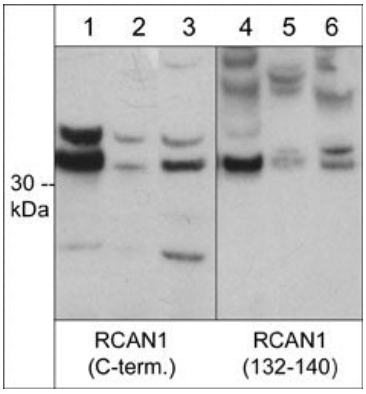
Gene ID	1827
Other Names	Dscr1, MCIP, RCAN1, calcipressin, Adapt78
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-RCAN1/Dscr1 (central region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

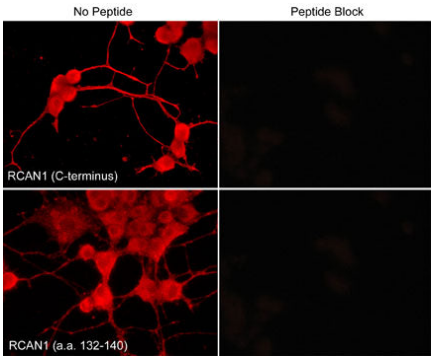
An important element of calcium signaling pathways involves calmodulin activation of calcineurin (phosphatase PP2B), leading to dephosphorylation of transcription factors such as NFAT and MEF2. A wide variety of proteins other than calmodulin have also been implicated in regulating calcineurin activity. Regulators of Calcineurin (RCANs) include RCAN1, RCAN2, and RCAN3. RCAN1 has previously been referred to as Down's syndrome candidate region-1 (Dscr1), MCIP, calcipressin, and Adapt78. This RCAN is expressed as several different variants with RCAN1L (38 kDa) and RCAN1S (31 kDa) being most prevalent. RCAN1 is increased in Down's syndrome tissues and in a mouse model of Down's syndrome. Increased expression of RCAN1 leads to significant suppression of tumor growth in mice as result of deficits in calcineurin-induced tumor angiogenesis. RCAN1 can recruit TAB1, TAK1, and calcineurin into a macromolecular signaling complex, and TAK1 can phosphorylate Ser-94 and Ser-136 in RCAN1S. This phosphorylation converts RCAN1 from an inhibitor to a facilitator of calcineurin-NFAT signaling.

Images

Western blot analysis of RCAN1 expression in human Jurkat (lanes 1 & 4), mouse C2C12 (lanes 2 & 5), and rat PC12 (lanes 3 & 6). The blot was probed with rabbit polyclonal anti-RCAN1 (C-terminus) at 1:1000 and



anti-RCAN1 (a.a. 132-140) at 1:500.



Immunocytochemical labeling of RCAN1 in aldehyde-fixed NGF-differentiated PC12 cells. The cells were labeled with rabbit polyclonal anti-RCAN1 (C-terminus) (RP3941) and anti-RCAN1 (a.a. 132-140) (AN1936) antibodies (Left side). These antibodies were also used in the presence (Right side) of blocking peptide RX3945 and RX3965, respectively. The antibodies were detected using appropriate secondary antibody conjugated to DyLight® 594.