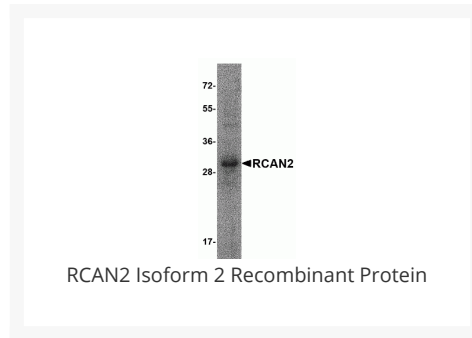




# RCAN2 Isoform 2 Recombinant Protein

Cat. No.: 95-114



## Ψ Specifications

<b>SPECIES:</b>	Mouse
<b>SOURCE SPECIES:</b>	E. coli
<b>SEQUENCE:</b>	aa 2 - 197
<b>FUSION TAG:</b>	<b>Fusion Partner:</b> C-terminal His-tag
<b>TESTED APPLICATIONS:</b>	ELISA, WB
<b>APPLICATIONS:</b>	This recombinant protein can be used for WB and ELISA. For research use only.
<b>PREDICTED MOLECULAR WEIGHT:</b>	26 kDa (Calculated)

## Ψ Properties

<b>PURITY:</b>	~95%
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	100mM sodium phosphate, 10mM Tris, 500mM NaCl, 25 mM imidazole, 2mM MgCl <sub>2</sub> , 10% glycerol
<b>STORAGE CONDITIONS:</b>	Store in working aliquots at -70 °C. Avoid freeze/thaw cycles. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

<b>OFFICIAL SYMBOL:</b>	Rcan2
<b>ALTERNATE NAMES:</b>	RCAN2 Antibody: Csp2, MCIP2, ZAKI-4, Dscr111, Zaki4, Calcipressin-2, Calcineurin inhibitory protein ZAKI-4
<b>ACCESSION NO.:</b>	AAH62141
<b>PROTEIN GI NO.:</b>	38328420
<b>GENE ID:</b>	53901

## Background and References

<b>BACKGROUND:</b>	Regulator of calcineurin 2 (RCAN2), also known as ZAKI4 and DSCR1L1, is expressed as two isoforms differing at their N-terminus. The longer of the two (isoform 1) is expressed exclusively in the brain, while isoform 2 is ubiquitously expressed, with highest expression in brain, heart, and muscle (1,2). Both isoforms bind to the catalytic subunit of calcineurin, a Ca <sup>++</sup> -dependent protein phosphatase involved in several neuronal functions, though their C-terminal region and inhibit calcineurin's activity (3). Unlike isoform 1 of RCAN2, the expression of the second isoform is not induced by the thyroid hormone T3 (3). RCAN2 is a member of a family of three endogenous calcineurin regulators that are located near the minimal supernumerary fragment of chromosome 21 in individuals with Down syndrome, suggesting that they play a role in this syndrome (4).
<b>REFERENCES:</b>	1) Miyazaki T, Kanou Y, Murata Y, et al. Molecular cloning of a novel thyroid hormone-responsive gene, ZAKI-4, in human skin fibroblasts. <i>J. Biol. Chem.</i> 1996; 271:14567-71.
	2) Rothermal B, Vega RB, Yang J, et al. A protein encoded within the Down syndrome critical region is enriched in striated muscles and inhibits calcineurin signaling. <i>J. Biol. Chem.</i> 2000; 275:8719-25.
	3) Cao X, Kambe F, Miyazaki Y, et al. Novel human ZAKI-4 isoforms: hormonal and tissue-specific regulation and function as calcineurin inhibitors. <i>Biochem. J.</i> 2002; 367:459-66.
	4) Fuentes JJ, Genesca L, Kingsbury TJ, et al. DSCR1, overexpressed in Down syndrome, is an inhibitor of calcineurin-mediated signaling pathways. <i>Hum. Mol. Genet.</i> 2000; 9:1681-90.

### ANTIBODIES FOR RESEARCH USE ONLY.

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