

DSCR1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6315c

Specification

DSCR1 Antibody (C-term) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Isotype Antigen Region WB,E <u>P53805</u> <u>O6IN33</u>, <u>O9JHG6</u>, <u>O35847</u>, <u>O3ZBP4</u>, <u>O7Z555</u>, <u>O6XXM7</u> Human Bovine, Hamster, Mouse, Rat, Sheep Rabbit Polyclonal Rabbit IgG 222-252

DSCR1 Antibody (C-term) - Additional Information

Gene ID 1827

Other Names Calcipressin-1, Adapt78, Down syndrome critical region protein 1, Myocyte-enriched calcineurin-interacting protein 1, MCIP1, Regulator of calcineurin 1, RCAN1, ADAPT78, CSP1, DSC1, DSCR1

Target/Specificity

This RCAN1/DSCR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 222-252 amino acids from the C-terminal region of human DSCR1.

Dilution WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

DSCR1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DSCR1 Antibody (C-term) - Protein Information



Name RCAN1

Synonyms ADAPT78, CSP1, DSC1, DSCR1

Function Inhibits calcineurin-dependent transcriptional responses by binding to the catalytic domain of calcineurin A (PubMed:<u>12809556</u>). Could play a role during central nervous system development (By similarity).

Tissue Location

Highly expressed heart, brain and skeletal muscle. Also expressed in all other tissues

DSCR1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

DSCR1 Antibody (C-term) - Images



Endothelial cell lysate transferred to membrane was incubated with primary antibody at a 1:500 dilution in 2% BSA in TBST at 4deg C overnight. Data courtesy of Dr. Katherine Healey, NWCRF Institute, School of Biological Sciences, University of Wales Bangor.



The anti-DSCR1 Pab (Cat. #AP6315c) is used in Western blot to detect RCAN1/DSCR1 in endothelial tissue lysate.



DSCR1 Antibody (C-term) - Background

DSCR1 interacts with calcineurin A and inhibits calcineurin-dependent signaling pathways, possibly affecting central nervous system development. The gene for this protein is located in the minimal candidate region for the Down syndrome phenotype, and is overexpressed in the brain of Down syndrome fetuses. Chronic overexpression of DSCR1 may lead to neurofibrillary tangles such as those associated with Alzheimer disease.

DSCR1 Antibody (C-term) - References

Minami, T., et al., J. Biol. Chem. 279(48):50537-50554 (2004). Yao, Y.G., et al., Biochem. Biophys. Res. Commun. 321(3):648-656 (2004). Michtalik, H.J., et al., Free Radic. Biol. Med. 37(4):454-462 (2004). Hesser, B.A., et al., Blood 104(1):149-158 (2004). lizuka, M., et al., Biochem. Biophys. Res. Commun. 41(4):334-344 (2004).

DSCR1 Antibody (C-term) - Citations

- RCAN1 deficiency protects against Salmonella intestinal infection by modulating JNK activation.
- DSCR1 is required for both axonal growth cone extension and steering.
- <u>Ubiquitin-specific Protease 22 (USP22) Positively Regulates RCAN1 Protein Levels through RCAN1 De-ubiquitination.</u>
- <u>NGF upregulates the plasminogen activation inhibitor-1 in neurons via the Calcineurin/NFAT</u> <u>pathway and the down syndrome-related proteins DYRK1A and RCAN1 attenuate this effect.</u>
- Regulator of calcineurin 1 suppresses inflammation during respiratory tract infections.
- DSCR1 interacts with FMRP and is required for spine morphogenesis and local protein synthesis.
- Glucocorticoid evoked upregulation of RCAN1-1 in human leukemic CEM cells susceptible to apoptosis.
- Rcan1 negatively regulates Fc epsilonRI-mediated signaling and mast cell function.