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CRTR1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14317a

Product Information

Application	WB, FC, IF, IHC-P-Leica, E
Primary Accession	Q9NZI6
Other Accession	NP_055368.1
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13433
Calculated MW	54627
Antigen Region	14-44

Additional Information

Gene ID	29842
Other Names	Transcription factor CP2-like protein 1, CP2-related transcriptional repressor 1, CRTR-1, Transcription factor LBP-9, TFCP2L1, CRTR1, LBP9
Target/Specificity	This CRTR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-44 amino acids from the N-terminal region of human CRTR1.
Dilution	WB~~1:1000 FC~~1:25 IF~~1:25 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	CRTR1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TFCP2L1
Synonyms	CRTR1, LBP9

Function	Transcription factor that facilitates establishment and maintenance of pluripotency in embryonic stem cells (ESCs) (PubMed:25215486, PubMed:26906118). With KLF2, acts as the major effector of self-renewal that mediates induction of pluripotency downstream of LIF/STAT3 and Wnt/beta-catenin signaling (By similarity). Required for normal duct development in the salivary gland and kidney (By similarity). Coordinates the development of the kidney collecting ducts intercalated (IC) and principal (PC) cells, which regulate acid- base and salt-water homeostasis, respectively (By similarity). Regulates the expression of IC genes including subunits B1 and D2 of the V-ATPase complex, OXGR1, CA12, SLC4A1, AQP6 and IC-specific transcription factor FOXI1 (By similarity). Also regulates the expression of JAG1 and subsequent notch signaling in the collecting duct (By similarity). JAG1 initiates notch signaling in PCs but inhibits notch signaling in ICs (By similarity). Acts as a transcriptional suppressor that may suppress UBP1-mediated transcriptional activation (By similarity). Modulates the placental expression of CYP11A1 (PubMed:10644752).
Cellular Location	Nucleus.
Tissue Location	Highly expressed in placental JEG-3 cells and very low levels of expression in non-steroidogenic cells. No expression was seen in adrenal NCI-H295A cells or in adrenal tissue

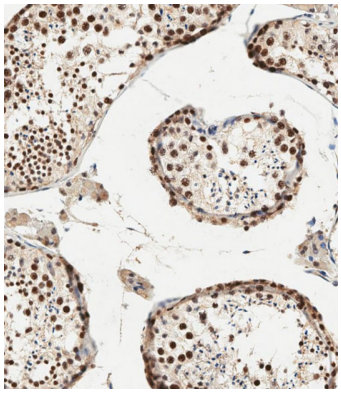
Background

Transcriptional suppressor. CRTRT1 may suppress UBP1-mediated transcriptional activation. Modulates the placental expression of CYP11A1.

References

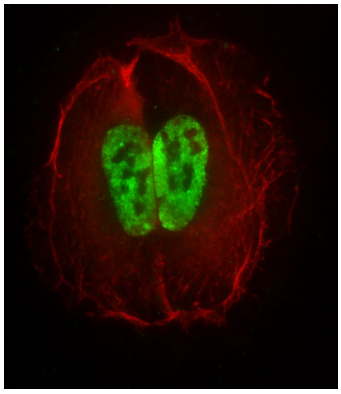
To, S., et al. PLoS ONE 5 (7), E11702 (2010) :
Henderson, Y.C., et al. DNA Cell Biol. 27(2):71-79(2008)
Hillier, L.W., et al. Nature 434(7034):724-731(2005)
Huang, N., et al. Mol. Endocrinol. 19(2):409-420(2005)
Rodda, S., et al. J. Biol. Chem. 276(5):3324-3332(2001)

Images

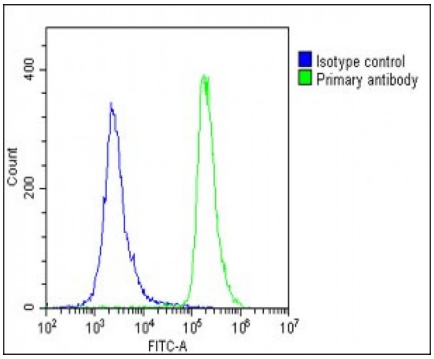


Immunohistochemical analysis of paraffin-embedded human testis tissue using AP14317A performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

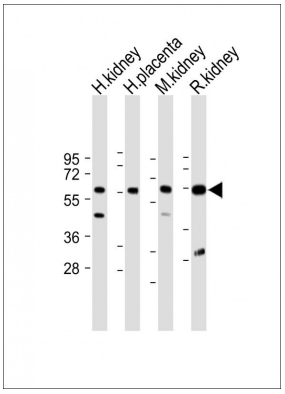
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized U-2OS cells labeling TFCP2L1 with AP14317A at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG (OH191631)



secondary antibody at 1/200 dilution (green). Immunofluorescence image showing nucleus staining on U-2OS cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (1186255) at 1/500 dilution (red). The nuclear counter stain is DAPI (blue).



Overlay histogram showing U-2 OS cells stained with AP14317A(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP14317A, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-CRTRT1 Antibody (N-term) at 1:2000 dilution Lane 1: Human kidney lysate Lane 2: Human placenta lysate Lane 3: Mouse kidney lysate Lane 4: Rat kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 55 kDa Blocking/Dilution buffer: 5% NFDM/TBST.