

TFCP2L1 Antibody

Catalog # ASC11472

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	<u>Q9NZI6</u>
Other Accession	<u>NP_055368</u> , <u>7657299</u>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	54627
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TFCP2L1 antibody can be used for detection of TFCP2L1 by Western blot at 1 - 2 [g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 [g/mL. For immunofluorescence start at 2.5 [g/mL.

Additional Information

Gene ID Other Names	29842 Transcription factor CP2-like protein 1, CP2-related transcriptional repressor 1, CRTR-1, Transcription factor LBP-9, TFCP2L1, CRTR1, LBP9
Target/Specificity	TFCP2L1;
Reconstitution & Storage	TFCP2L1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TFCP2L1 Antibody 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: <u>25215486</u> , PubMed: <u>26906118</u>). 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: <u>10644752</u>).
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

TFCP2L1 Antibody: The Transcription factor CP2-like protein 1 (TFCP2L1) is related to the ubiquitously expressed CP2 family of transcription factors that are generally transcription factors. TFCP2L1 is expressed in a developmentally regulated fashion during embryogenesis and in the epithelial lining of distal convoluted tubules in embryonic and adult kidneys. Recent studies have shown that TFCP2L1 is part of an Oct4-centered protein interaction network in embryonic stem cells. It is thought to modulate the activity of other CP2 family members in a cell specific manner, and is itself regulated by sumoylation at a single major site.

References

Rodda S, Sharma S, Scherer M, et al. CRTR-1, a developmentally regulated transcriptional repressor related to the CP2 family of transcription factors. J. Biol. Chem. 2001; 276:3324-32.

van den Berg DL, Snoek T, Mullin NP, et al. An Oct4-centered protein interaction network in embryonic stem cells. Cell Stem Cell 2010; 6:369-81.

To S, Rodda SJ, Rathjen PD, et al. Modulation of CP family transcriptional activity by CRTR-1 and sumoylation. PLoS One 2011; 5:e11702.

Images



Western blot analysis of TFCP2L1 in human colon tissue lysate with TFCP2L1 antibody at (A) 1 and (B) 2 µg/mL

Immunohistochemistry of TFCP2L1 in rat colon tissue with TFCP2L1 antibody at 2.5 $\mu g/mL$



Immunofluorescence of TFCP2L1 in rat colon tissue with TFCP2L1 antibody at 20 $\mu\text{g/mL}.$

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