

CTDSP1-V250 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8461b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9GZU7
Other Accession	P58466
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5996
Antigen Region	235-261

Additional Information

Other Names	Carboxy-terminal domain RNA polymerase II polypeptide A small phosphatase 1, Nuclear LIM interactor-interacting factor 3, NLI-IF, NLI-interacting factor 3, Small C-terminal domain phosphatase 1, SCP1, Small CTD phosphatase 1, CTDSP1, NIF3, NLIIF, SCP1
Target/Specificity	This CTDSP1-V250 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 235-261 amino acids from the C-terminal region of human CTDSP1-V250.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is 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	CTDSP1-V250 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Background

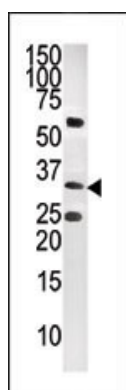
CTDSP1 is a class 2C phosphatase with activity dependent on the conserved DxD motif. Expression of CTDSP1 inhibited activated transcription from several promoter-reporter gene constructs, but expression of

a mutant lacking phosphatase activity enhanced transcription. Neuronal gene transcription is repressed in nonneuronal cells by the repressor element-1 (RE1)-silencing transcription factor/neuron-restrictive silencer factor (REST/NRSF; 600571) complex. REST/NRSF recruits SCPs to neuronal genes that contain RE1 elements, leading to neuronal gene silencing in nonneuronal cells. Phosphatase-inactive forms of SCP interfere with REST/NRSF function and promote neuronal differentiation of P19 stem cells. Likewise, small interfering RNA directed to the single *Drosophila* SCP unmasks neuronal gene expression in S2 cells. Thus, SCP activity is an evolutionarily conserved transcriptional regulator that acts globally to silence neuronal genes.

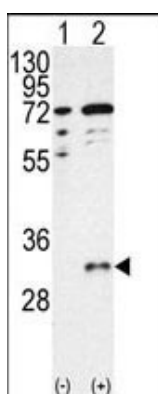
References

- Yeo, M., Lee, S.K., Lee, B., Ruiz, E.C., Pfaff, S.L. and Gill, G.N. *Science* 307 (5709): 596-600 (2005).
Fernandes, A.O., Campagnoni, C.W., Kampf, K., Feng, J.M., Handley, V.W. *J. Neurosci. Res.* 75 (4): 461-471 (2004).
Yeo, M., Lin, P.S., Dahmus, M.E. and Gill, G.N. *J. Biol. Chem.* 278 (28): 26078-26085 (2003).

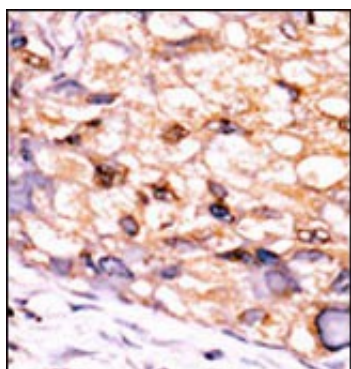
Images



The anti-CTDSP1-V250 (Cat. #AP8461b) is used in Western blot to detect CTDSP1-V250 in CEM tissue lysate.



Western blot analysis of CTDSP1 (arrow) using CTDSP1-V250 Antibody (C-term) (Cat.#AP8461b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CTDSP1 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.