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FCP1 Rabbit pAb

Catalog # AP98763

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y5B0
Other Accession	Q9Y5B0
Reactivity	Rat
Predicted	Pig, Human, Mouse, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	104399
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FCP1
Epitope Specificity	201-300/961
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 BRCT domain. Contains 1 FCP1 homology domain.
Post-translational modifications	Phosphorylated. In the presence of TFIIF, the phosphorylated form has an increased CTD phosphatase activity. The phosphorylation is required for the physical interaction with GTF2F1.
DISEASE	Defects in CTDP1 are a cause of congenital cataracts facial dysmorphism and neuropathy syndrome (CCFDN) [MIM:604168]. CCFDN is an autosomal recessive developmental disorder that occurs in an endogamous group of Vlax Roma (Gypsies). The syndrome is characterized by a complex clinical phenotype with seemingly unrelated features involving multiple organs and systems. Developmental abnormalities include congenital cataracts and microcorneae, hypomyelination of the peripheral nervous system, impaired physical growth, delayed early motor and intellectual development, facial dysmorphism and hypogonadism. Central nervous system involvement, with cerebral and spinal cord atrophy, may be the result of disrupted development with superimposed degenerative changes. Affected individuals are prone to severe rhabdomyolysis after viral infections and to serious complications related to general anesthesia (such as pulmonary edema and epileptic seizures).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein which interacts with the carboxy-terminus of the RAP74 subunit of transcription initiation factor TFIIF, and functions as a phosphatase that processively dephosphorylates the C-terminus of POLR2A (a subunit of RNA polymerase II), making it available for initiation of gene expression. Mutations in this gene are associated with congenital cataracts, facial dysmorphism and neuropathy syndrome (CCFDN). Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Feb 2011]

Additional Information

Gene ID	9150
Other Names	CCFDN; FCP1; 4930563P03Rik; XELAEV_18033529mg; ctdp1; CTDP1_HUMAN; TFIIF-associating CTD phosphatase; 3.1.3.16; CTDP1_MOUSE; CTD phosphatase subunit 1; CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) phosphatase, subunit 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CTDP1
Synonyms	FCP1
Function	Processively dephosphorylates 'Ser-2' and 'Ser-5' of the heptad repeats YSPTSPS in the C-terminal domain of the largest RNA polymerase II subunit. This promotes the activity of RNA polymerase II. Plays a role in the exit from mitosis by dephosphorylating crucial mitotic substrates (USP44, CDC20 and WEE1) that are required for M- phase-promoting factor (MPF)/CDK1 inactivation.
Cellular Location	Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Midbody Note=Found at centrosomes in prometaphase, at spindle and spindle poles in metaphase and at spindle midzone and midbody in anaphase and telophase-G1 respectively
Tissue Location	Ubiquitously expressed.

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