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CTPS2 Rabbit pAb

Catalog # AP97622

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NRF8
Other Accession	Q9NRF8
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	65678
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CTPS2
Epitope Specificity	151-250/586
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the CTP synthase family. Contains 1 glutamine amidotransferase type-1 domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene catalyzes the formation of CTP from UTP with the concomitant deamination of glutamine to glutamate. This protein is the rate-limiting enzyme in the synthesis of cytosine nucleotides, which play an important role in various metabolic processes and provide the precursors necessary for the synthesis of RNA and DNA. Cancer cells that exhibit increased cell proliferation also exhibit an increased activity of this encoded protein. Thus, this protein is an attractive target for selective chemotherapy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

Additional Information

Gene ID	56474
Other Names	GATD5B; A830031M15Rik; Ctpsh; PYRG2_CHICK; CTPS2; CTP synthetase 2; UTP--ammonia ligase 2; 6.3.4.2; PYRG2_BOVIN; PYRG2_HUMAN; PYRG2_MOUSE; CTP synthetase 2 (CTPsH); PYRG2_RAT; CTP synthase 2; CTP synthase II
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	CTPS2 {ECO:0000303|PubMed:16179339, ECO:0000312|HGNC:HGNC:2520}
Function	CTP synthase involved in the de novo synthesis of CTP, a precursor of DNA, RNA and phospholipids. Catalyzes the ATP-dependent amination of UTP to CTP with either L-glutamine or ammonia as a source of nitrogen (PubMed:10899599, PubMed:16179339, PubMed:31873303, PubMed:34583994). Constitutes the rate-limiting enzyme in the synthesis of cytosine nucleotides (PubMed:10899599, PubMed:16179339).
Cellular Location	Cytoplasm, cytosol. Nucleus. Note=Cytoplasmic and nuclear; detected in long filamentous structures named cytoophidium

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