10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

C1D Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55297

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q13901
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16019
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human C1D
Epitope Specificity	51-141/141
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus > nucleolus. EXOSC10 is required for nucleolar localization.
SIMILARITY	Belongs to the C1D family.
Post-translational modifications	Phosphorylated by PRKDC.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	C1D, also known as SUNCOR, is a nuclear DNA-binding protein that localizes to the nucleus and cytoplasm and participates in processing of the 5.8S rRNA. Expressed ubiquitously with highest expression in thyroid, salivary gland, hippocampus and medulla oblongata, C1D forms a multi-protein complex with MPP6 (M phase phosphoprotein 6) and EXOSC10 (exosome component 10). This complex is responsible, in part, for recruiting the exosome to pre-rRNA and it functions to mediate 3'-5' rRNA processing. Additionally, C1D can induce transcriptional repression and apoptosis through interaction with Rev-erbα (V-erbA-related protein EAR-1)/TRβ (thyroid hormone receptor β) and p53, respectively. C1D, a 141 amino acid protein, is also implicated in DNA repair mechanisms, as well as DNA-PK (DNA-dependent protein kinase) activation.

Additional Information

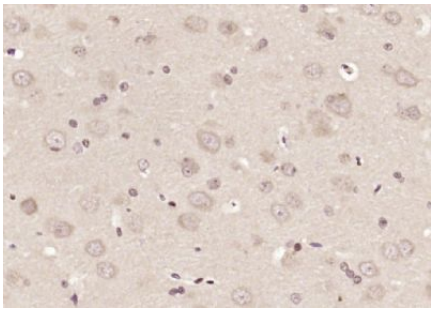
Gene ID	10438
Other Names	Nuclear nucleic acid-binding protein C1D, hC1D, C1D
Target/Specificity	Ubiquitous. Expressed at very high levels in the hippocampus, medulla oblongata, mammary gland, thyroid and salivary gland. Expressed at high levels in the fetal; lung, liver and kidney. Expressed at low levels in skeletal

	muscle, appendix, heart, lung and colon.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	C1D
Function	Plays a role in the recruitment of the RNA exosome complex to pre-rRNA to mediate the 3'-5' end processing of the 5.8S rRNA; this function may include MPHOSPH6. Can activate PRKDC not only in the presence of linear DNA but also in the presence of supercoiled DNA. Can induce apoptosis in a p53/TP53 dependent manner. May regulate the TRAX/TSN complex formation. Potentiates transcriptional repression by NR1D1 and THRB (By similarity).
Cellular Location	Nucleus. Cytoplasm. Nucleus, nucleolus. Note=EXOSC10 is required for nucleolar localization (PubMed:17412707). Colocalizes with TSNAX in the nucleus (PubMed:11801738).
Tissue Location	Ubiquitous. Expressed at very high levels in the hippocampus, medulla oblongata, mammary gland, thyroid and salivary gland. Expressed at high levels in the fetal; lung, liver and kidney Expressed at low levels in skeletal muscle, appendix, heart, lung and colon.

Images



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (C1D) Polyclonal Antibody, Unconjugated (AP55297) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.