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C21ORF18 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10689

Product Information

Application	WB
Primary Accession	Q9NVD3
Other Accession	NM_017438, NP_059134
Reactivity	Human, Mouse, Rat, Rabbit, Dog, Horse, Bovine
Predicted	Human, Mouse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50416

Additional Information

Gene ID	54093
Alias Symbol	C21orf18, C21orf27
Other Names	SET domain-containing protein 4, 2.1.1.-, SETD4, C21orf18, C21orf27
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-C21ORF18 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	C21ORF18 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SETD4 {ECO:0000303|PubMed:24738023, ECO:0000312|HGNC:HGNC:1258}
Function	Protein-lysine N-methyltransferase that methylates both histones and non-histone proteins (PubMed:31308046, PubMed:35545041, PubMed:37926288). Via its catalytic activity, regulates many processes, including cell proliferation, cell differentiation, inflammatory response and apoptosis. Regulates the inflammatory response by mediating mono- and dimethylation of 'Lys-4' of histone H3 (H3K4me1 and H3K4me2, respectively), leading to activate the transcription of pro- inflammatory cytokines IL6 and TNF-alpha (By similarity). Through the catalysis of TBK1 monomethylation, may regulate virus-induced interferon signaling. TBK1 monomethylation enhances its interaction with MAVS, STING and IRF3, hence promoting antiviral interferon signaling (PubMed:37926288). Also involved in the

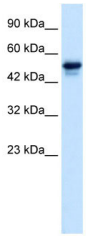
regulation of stem cell quiescence by catalyzing the trimethylation of 'Lys-20' of histone H4 (H4K20me3), thereby promoting heterochromatin formation (PubMed:31308046). In the brain, epigenetically controls quiescence of neural stem cells for sustaining a protected neural stem cell population and maintaining a stem cell reservoir for neurogenesis (By similarity). Involved in proliferation, migration, paracrine and myogenic differentiation of bone marrow mesenchymal stem cells (BMSCs) (By similarity). Through the catalysis of XRCC5/Ku70 trimethylation, regulates BAX-mediated apoptosis. SETD4-catalyzed XRCC5 methylation results in XRCC5 translocation to the cytoplasm, where it interacts with BAX, sequestering it from the mitochondria, hence preventing BAX- mediated apoptosis (PubMed:35545041).

Cellular Location Cytoplasm, cytosol. Nucleus

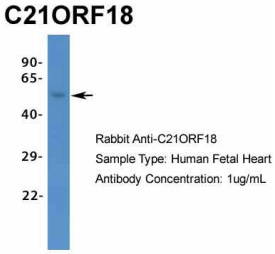
References

Reymond,A., et al., (2001) Genomics 78 (1-2), 46-54Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

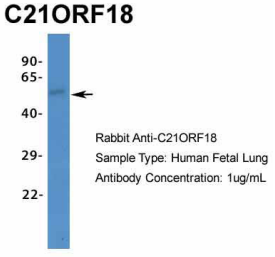
Images



WB Suggested Anti-C21ORF18 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:12500
Positive Control: HepG2 cell lysate

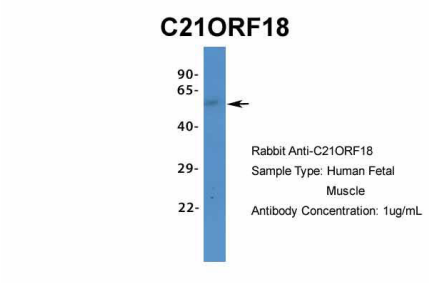


Host: Rabbit
Target Name: C21ORF18
Sample Tissue: Human Fetal Heart
Antibody Dilution: 1.0µg/ml



Host: Rabbit
Target Name: C21ORF18
Sample Tissue: Human Fetal Lung
Antibody Dilution: 1.0µg/ml

Host: Rabbit
Target Name: C21ORF18
Sample Tissue: Human Fetal Muscle
Antibody Dilution: 1.0µg/ml



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.