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NAF1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57345

Specification

NAF1 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q96HR8
Reactivity	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**54 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human NAF1**
Epitope Specificity	**301-400/494**
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. Shuttles between the cytoplasm and the nucleus. Absent from the nucleolus.**
SIMILARITY	**Belongs to the dwarfin/SMAD family. Contains 1 MH1 (MAD homology 1) domain. Contains 1 MH2 (MAD homology 2) domain.**
SUBUNIT	**Interacts with HGS, NANOG and ZCCHC12 By similarity. May form trimers with another SMAD1 and the co-SMAD SMAD4. Interacts with PEBP2-alpha subunit, CREB-binding protein (CBP), p300, SMURF1, SMURF2, USP15 and HOXC8. Associates with ZNF423 or ZNF521 in response to BMP2 leading to activate transcription of BMP target genes. Interacts with SKOR1. Interacts (via MH2 domain) with LEMD3. Binding to LEMD3 results in at least a partial reduction of receptor-mediated phosphorylation. Forms a ternary complex with PSMB4 and OAZ1 before PSMB4 is incorporated into the 20S proteasome.**
Post-translational modifications	**Phosphorylated on serine by BMP type 1 receptor kinase. Ref.11 Ref.22 Ubiquitinated by SMAD-specific E3 ubiquitin ligase SMURF1, leading to its degradation. Monoubiquitinated, leading to prevent DNA-binding. Deubiquitination by USP15 alleviates inhibition and**

	promotes activation of TGF-beta target genes.
DISEASE	**SMAD1 variants may be associated with susceptibility to pulmonary hypertension, a disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pression, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetrance is reduced. Although familial pulmonary hypertension is rare, cases secondary to known etiologies are more common and include those associated with the appetite-suppressant drugs.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
NAF1 is a 494 amino acid RNA-binding protein belonging to the NAF1 family. Encoded by a gene that maps to human chromosome 4q32.2, NAF1 associates with mature RNA in cell lysates and is essential for ribosome biogenesis, premessenger RNA splicing, stable RNA accumulation, maturation of box snoRNP complexes and telomere maintenance. NAF1 mobilizes at the site of transcription where it binds to and escorts the core protein Dyskerin between the nucleus and cytoplasm. NAF1 is replaced by GAR1, which binds competitively with NAF1, resulting in mature RNPs in Cajal bodies and nucleoli. NAF1 delocalizes to the cytoplasm during overexpression but NAF1 shuttling properties continue to be operative. Dyskeratosis congenita mutations in human telomerase RNA may affect NAF1 assembly function.

NAF1 Polyclonal Antibody - Additional Information

Gene ID 92345

Other Names
H/ACA ribonucleoprotein complex non-core subunit NAF1, hNAF1, NAF1

Target/Specificity
Ubiquitous. Highest expression seen in the heart and skeletal muscle.

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

NAF1 Polyclonal Antibody - Protein Information

Name NAF1

Function
RNA-binding protein required for the maturation of box H/ACA snoRNPs complex and ribosome biogenesis. During assembly of the H/ACA snoRNPs complex, it associates with the complex and disappears during maturation of the complex and is replaced by NOLA1/GAR1 to yield mature H/ACA snoRNPs complex. Probably competes with NOLA1/GAR1 for binding with DKC1/NOLA4.

Cellular Location
Cytoplasm. Nucleus. Note=Shuttles between the cytoplasm and the nucleus. Absent from the nucleolus (By similarity) {ECO:0000250|UniProtKB:P53919}

NAF1 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NAF1 Polyclonal Antibody - Images