

SmarcAL1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP57715

Specification

SmarcAL1 Polyclonal Antibody - Product Information

Application IHC-P, IHC-F, IF, ICC, E

Primary Accession
Reactivity
Rat, Bovine
Host
Clonality
Calculated MW
Rat, Bovine
Rabbit
Polyclonal
106 KDa

Physical State
Liquid
Immunogen
KLH conjugated synthetic peptide derived

laG

from human SmarcAL1

Epitope Specificity 581-680/954

Isotype
Purity
affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus.

SIMILARITY Belongs to the SNF2/RAD54 helicase

family. SMARCAL1 subfamily. Contains 2 HARP domains.Contains 1 helicase ATP-binding domain. Contains 1 helicase

C-terminal domain.

SUBUNIT Interacts with RPA2: the interaction is

direct and mediates the recruitment by the RPA complex of SMARCAL1 to sites of DNA

damage.

DISEASE Defects in SMARCAL1 are a cause of

Schimke immuno-osseous dysplasia (SIOD)

[MIM:242900]. SIOD causes

spondyloepiphyseal dysplasia, renal dysfunction and T-cell immunodeficiency. Approximately half of all patients also exhibit hyperthyroidism, while around half also exhibit episodal cerebral ischema. This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

Background Descriptions

Important Note

The protein encoded by this gene is a member of the SWI/SNF family of proteins. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The encoded protein shows sequence similarity to the E. coli RNA polymerase-binding protein HepA. Mutations in this gene are a cause of Schimke immunoosseous dysplasia (SIOD), an autosomal recessive disorder with the diagnostic features of spondyloepiphyseal dysplasia, renal dysfunction, and T-cell immunodeficiency. [provided by RefSeq, Jul 2008]



SmarcAL1 Polyclonal Antibody - Additional Information

Gene ID 50485

Other Names

SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A-like protein 1, 3.6.4.-, HepA-related protein, hHARP, Sucrose nonfermenting protein 2-like 1, SMARCAL1, HARP

Target/Specificity

Ubiquitously expressed, with high levels in testis.

Dilution

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<span class ="dilution_IHC-P">IHC-P~~N/A</span><br \> <span class
="dilution_IHC-F">IHC-F~~N/A</span><br \> <span class
="dilution_IF">IF~~1:50~200</span><br \> <span class ="dilution_ICC">ICC~~N/A</span><br \> <span class ="dilution_E">E~~N/A</span>
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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.

SmarcAL1 Polyclonal Antibody - Protein Information

Name SMARCAL1 (HGNC:11102)

Function

ATP-dependent annealing helicase that binds selectively to fork DNA relative to ssDNA or dsDNA and catalyzes the rewinding of the stably unwound DNA. Rewinds single-stranded DNA bubbles that are stably bound by replication protein A (RPA). Acts throughout the genome to reanneal stably unwound DNA, performing the opposite reaction of many enzymes, such as helicases and polymerases, that unwind DNA. May play an important role in DNA damage response by acting at stalled replication forks.

Cellular Location

Nucleus Note=Recruited to damaged DNA regions

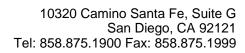
Tissue Location

Ubiquitously expressed, with high levels in testis.

SmarcAL1 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture





SmarcAL1 Polyclonal Antibody - Images