

# Anti-SmarcAL1 (RABBIT) Antibody

SmarcAL1 Antibody Catalog # ASR5261

# Specification

# Anti-SmarcAL1 (RABBIT) Antibody - Product Information

Host Conjugate Target Species Reactivity Clonality Application Application Note	Rabbit Unconjugated Human Human Polyclonal WB, E, I, LCI This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 106 kDa in size corresponding to SmarcAL1 by western blotting in the appropriate cell lysate or extract.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal near aa 75-100 of human SmarcAL1 protein.
Preservative	0.01% (w/v) Sodium Azide

# Anti-SmarcAL1 (RABBIT) Antibody - Additional Information

Gene ID 50485

Other Names 50485

#### **Purity**

This affinity purified antibody is directed against human SmarcAL1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human based on 100% homology for the immunogen sequence. Cross reactivity with SmarcAL1 from other sources is not expected due to significant sequence divergence within the immunogen sequence.

#### Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.



# **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

# Anti-SmarcAL1 (RABBIT) Antibody - Protein Information

Name SMARCAL1

Synonyms HARP

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.

### Anti-SmarcAL1 (RABBIT) Antibody - Protocols

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

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

Anti-SmarcAL1 (RABBIT) Antibody - Images

	1	2	3	4	5
240kDa —					
160kDa —					
116kDa — 97kDa —				-	-
66kDa — 55KDa	-	-		_	_
40kDa-					-

Western blot using Rockland's Affinity Purified anti-SmarcAL1 antibody shows detection of a band



~106 kDa band corresponding to SmarcAL1 in human derived cultured cell lysates. Lane 1: HeLa nuclear extract (p/n W09-001-367), Lane 2: HeLa WC (p/n W09-000-364), Lane 3: A431 WC (p/n W09-000-361), Lane 4: Jurkat WC (p/n W09-001-370), and 293 WC (p/n W09-000-365). Approximately 5  $\mu$ g of each lysates was run on a SDS-PAGE and transferred onto nitrocellulose followed by reaction with a 1:500 dilution of anti-SmarcAL1 antibody. Signal was detected using standard techniques. SmarcAL1 is the band seen between the 97 and 116kD markers.

# Anti-SmarcAL1 (RABBIT) Antibody - Background

SmarcAL1 (SWI/SNF-related µatrix-associated actin-dependent regulator of chromatin a-like 1) is also known as HARP, HepA Related Protein, HHARP, SMARCA like Protein 1 and SWI/SNF Related. SmarcAL1 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.