

Anti-BRRN1 (RABBIT) Antibody
BRRN1 Antibody
Catalog # ASR5273**Specification**

Anti-BRRN1 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	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 83 kDa in size corresponding to human BRRN1 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 region near amino acids 435-460 of Human BRRN-1.
Preservative	0.01% (w/v) Sodium Azide

Anti-BRRN1 (RABBIT) Antibody - Additional Information**Gene ID** 23397**Other Names**
23397**Purity**

This is an affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. Reactivity occurs against human BRRN1 protein. However, BLAST analysis indicates 100% homology (18/18) for this protein from human, and chimpanzee. Partial cross reactivity is expected against mouse, dog, rat chicken, and from based on sequence homology of the amino terminal 13 amino acids of the immunogen sequence. The core 8 amino acids of the immunogen, A-G-P-D-H-W-R-F, show 100% identity with numerous proteins from a variety of organisms. If blots show multiple banding patterns in any particular lysate, it is suggested to confirm the specific reactivity against the BRRN1 protein using peptide competition. Reactivity with Brnn1 proteins from other sources is not known.

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-BRRN1 (RABBIT) Antibody - Protein Information

Name NCAPH {ECO:0000303|PubMed:27737959, ECO:0000312|HGNC:HGNC:1112}

Function

Regulatory subunit of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases (PubMed:11136719). Early in neurogenesis, may play an essential role to ensure accurate mitotic chromosome condensation in neuron stem cells, ultimately affecting neuron pool and cortex size (PubMed:27737959).

Cellular Location

Nucleus. Cytoplasm. Chromosome. Note=In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, most of the condensin complex is associated with the chromatin. At the onset of prophase, the regulatory subunits of the complex are phosphorylated by CDK1, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase

Tissue Location

Widely expressed at low level. Expressed in proliferating cells.

Anti-BRRN1 (RABBIT) 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 Cytometry](#)
- [Cell Culture](#)

Anti-BRRN1 (RABBIT) Antibody - Images**Anti-BRRN1 (RABBIT) Antibody - Background**

BRRN1, also called Barren, Condensin subunit 2, Barren homolog protein 1, Chromosome-associated protein H, hCAP-H, and XCAP-H homolog, is encoded by a gene that is a member of the barr gene family. Brnn1 is the regulatory subunit of the condensin complex, a

complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases. The condensin complex contains the SMC2L1 and SMC4L1 heterodimer, and three non SMC subunits that probably regulate the complex: BRRN1/CAPH, CNAP1/CAPD2 and CAPG. BRRN1 has both a nuclear and cytoplasmic localization. In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, most of the condensin complex is associated with the chromatin. At the onset of prophase, the regulatory subunits of the complex are phosphorylated by CDC2 leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase. BRRN1 is widely expressed at low level in most proliferating cells. CDC2 phosphorylates BRRN1. Its phosphorylation, as well as that of CNAP1 and CAPG subunits, activates the condensin complex and is required for chromosome condensation.