

**Anti-p29 ING4 (GOAT) Antibody**  
**p29ING4 Antibody**  
**Catalog # ASR5084****Specification**

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**Anti-p29 ING4 (GOAT) Antibody - Product Information**

Host	Goat
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 against the immunizing peptide. Specific conditions for western blotting reactivity should be optimized by the end user. Expect a band at approximately 29 kDa in size corresponding to ING4 isoform 1 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 goat serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 150-175 of Human p29 ING4 protein (Inhibitor of growth family, member 4). This sequence only shows homology to isoform 1 for ING4.
Preservative	0.01% (w/v) Sodium Azide

**Anti-p29 ING4 (GOAT) Antibody - Additional Information****Gene ID** 51147**Other Names**  
51147**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 p29 ING4 protein. The sequence is not present in isoforms 2 (see below). However, 100% homology is on record for this protein from human, dog, rat, and mouse. Cross reactivity with p29 ING4 protein from chimpanzee and chicken sources is also expected based on high homology (one amino acid change in sequence) by BLAST. Reactivity with p29 ING4 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-p29 ING4 (GOAT) Antibody - Protein Information****Name** ING4**Function**

Component of HBO1 complexes, which specifically mediate acetylation of histone H3 at 'Lys-14' (H3K14ac), and have reduced activity toward histone H4 (PubMed:<a href="http://www.uniprot.org/citations/16387653" target="\_blank">16387653</a>). Through chromatin acetylation it may function in DNA replication (PubMed:<a href="http://www.uniprot.org/citations/16387653" target="\_blank">16387653</a>). May inhibit tumor progression by modulating the transcriptional output of signaling pathways which regulate cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/15251430" target="\_blank">15251430</a>, PubMed:<a href="http://www.uniprot.org/citations/15528276" target="\_blank">15528276</a>). Can suppress brain tumor angiogenesis through transcriptional repression of RELA/NFKB3 target genes when complexed with RELA (PubMed:<a href="http://www.uniprot.org/citations/15029197" target="\_blank">15029197</a>). May also specifically suppress loss of contact inhibition elicited by activated oncogenes such as MYC (PubMed:<a href="http://www.uniprot.org/citations/15029197" target="\_blank">15029197</a>). Represses hypoxia inducible factor's (HIF) activity by interacting with HIF prolyl hydroxylase 2 (EGLN1) (PubMed:<a href="http://www.uniprot.org/citations/15897452" target="\_blank">15897452</a>). Can enhance apoptosis induced by serum starvation in mammary epithelial cell line HC11 (By similarity).

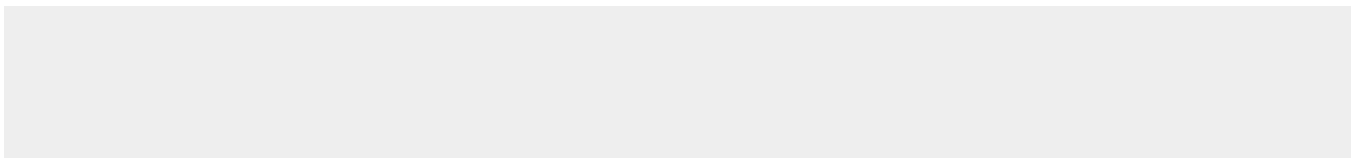
**Cellular Location**

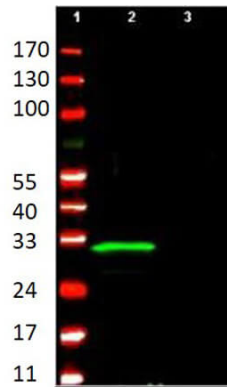
Nucleus

**Anti-p29 ING4 (GOAT) 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-p29 ING4 (GOAT) Antibody - Images**



Anti-p29 ING4 polyclonal antibody detects ING4 protein by western blot. This antibody was used at 1.0 µg/ml to detect ING4 (lane 2) present in a U2OS whole cell lysate over expressing the protein. A control lysate (lane 3) shows no background staining. Comparison to MW markers (lane 1) indicates detection of a single band at ~29 kDa corresponding to ING4. A 4-20% TRIS-glycine gradient gel was used to separate the protein by SDS-PAGE under reducing conditions. The protein was transferred to nitrocellulose using standard methods. After blocking using 5% non-fat dry milk in PBS, the membrane was probed with the primary antibody overnight at 4° C followed by washes and reaction with a 1:20,000 dilution of IRDye™ 800 conjugated Rb-a-Goat IgG [H&L] (code 605-432-013) for 45 min at room temperature. LICOR's Odyssey® Infrared Imaging System was used to scan and process the image. Other detection systems will yield similar results.

#### **Anti-p29 ING4 (GOAT) Antibody - Background**

p29 ING4 is a tumor suppressor protein similar to ING1 that may inhibit tumor progression by modulating the transcriptional output of signaling pathways which regulate cell proliferation. p29 ING4 has been shown to suppress brain tumor angio-genesis through transcriptional repression of RelA/ NFkB3 target genes when complexed with RelA. p29 ING4 may also specifically suppress loss of contact inhibition elicited by activated oncogenes such as MYC. p29 ING4 shows a nuclear localization and interacts with EP300, TP53, RelA, inhibits cell growth, and induces apoptosis. This protein contains a PHD-finger, which is a common motif in proteins involved in chromatin remodeling. Multiple alternatively spliced transcript variants have been observed. The accession number listed below is for variant (1) that encodes the longest isoform.