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# PPHLN1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20529a

## Product Information

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|---|---|
| **Application** | WB, IF, E |
| **Primary Accession** | Q8NEY8 |
| **Reactivity** | Human |
| **Predicted** | Bovine, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Calculated MW** | 52737 |
| **Antigen Region** | 45-66 |

## Additional Information

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| **Gene ID** | 51535 |
| **Other Names** | Periphilin-1, Gastric cancer antigen Ga50, PPHLN1 |
| **Target/Specificity** | This PPHLN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 45-66 amino acids from the N-terminal region of human PPHLN1. |
| **Dilution** | WB~~1:1000 IF~~1:25 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PPHLN1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PPHLN1 ( HGNC:19369) |
| **Function** | RNA-binding component of the HUSH complex, a multiprotein complex that mediates epigenetic repression of mobile genetic elements, such as retroviruses and transposable elements (PubMed:15474462, PubMed:17963697, PubMed:26022416, PubMed:32976585, PubMed:39658355). The HUSH complex mainly represses LINE-1 (L1) |

retrotransposons that are still capable of transposition (PubMed:32976585, PubMed:39658355). The HUSH complex is recruited to genomic loci rich in H3K9me3 and is probably required to maintain transcriptional silencing by promoting recruitment of SETDB1, a histone methyltransferase that mediates further deposition of H3K9me3, as well as MORC2, a chromatin remodeler that compacts chromatin (PubMed:26022416). The HUSH complex is also involved in the silencing of unintegrated retroviral DNA: some part of the retroviral DNA formed immediately after infection remains unintegrated in the host genome and is transcriptionally repressed (PubMed:30487602). Within the HUSH complex, PPHLN1 acts as a mRNA- binding component, which specifically binds nascent transcripts of mobile genetic elements, enabling HUSH-dependent silencing of transcripts (PubMed:39658355). Contributes to the maintenance of the HUSH complex at chromatin (PubMed:26022416, PubMed:39013473). As part of the HUSH2 complex, promotes epigenetic repression of interferon- stimulated genes (PubMed:33144593, PubMed:39013473). May be involved in epithelial differentiation by contributing to epidermal integrity and barrier formation (PubMed:12853457).

**Cellular Location** Nucleus. Cytoplasm. Chromosome. Note=In undifferentiated keratinocytes expressed in speckle-type nuclear granules and at the nuclear membrane, but in the differentiated keratinocytes colocalized with periplakin at the cell periphery and at cell-cell junctions (PubMed:12853457). Localizes to chromatin (PubMed:26022416).

**Tissue Location** Ubiquitous..

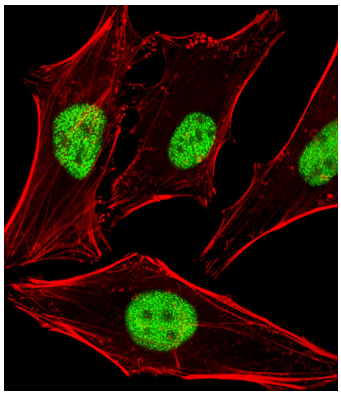
## Background

Involved in epithelial differentiation and contributes to epidermal integrity and barrier formation.

## References

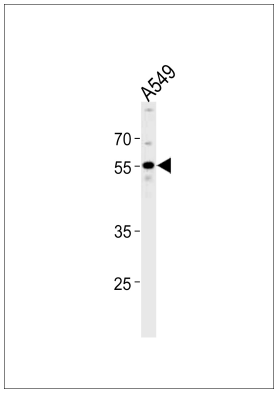
Imami K., et al. Anal. Sci. 24:161-166(2008).
Line A., et al. Br. J. Cancer 86:1824-1830(2002).
Kazerounian S., et al. J. Biol. Chem. 278:36707-36717(2003).
Zhang Q.-H., et al. Genome Res. 10:1546-1560(2000).
Ota T., et al. Nat. Genet. 36:40-45(2004).

## Images



Fluorescent image of Hela cells stained with PPHLN1 Antibody (N-term)(Cat#AP20529A). AP20529A was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

PPHLN1 Antibody (N-term) (Cat. #AP20529a) western blot analysis in A549 cell line lysates (35ug/lane).This




demonstrates the PPHLN1 antibody detected the PPHLN1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.