

**Periphilin Antibody**  
Catalog # ASC11436**Specification****Periphilin Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q8NEY8</a>
Other Accession	<a href="#">NP_958848</a> , <a href="#">48255929</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	Periphilin antibody can be used for detection of Periphilin by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 5 µg/mL.

**Periphilin Antibody - Additional Information**

Gene ID	51535
Target/Specificity	
PPHLN1;	

**Reconstitution & Storage**

Periphilin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

Periphilin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Periphilin Antibody - Protein Information**

Name PPHLN1 ([HGNC:19369](#))

**Function**

Component of the HUSH complex, a multiprotein complex that mediates epigenetic repression. 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. In the HUSH complex, contributes to the maintenance of the complex at chromatin (PubMed:<a href="http://www.uniprot.org/citations/26022416" target="\_blank">26022416</a>). Acts as a transcriptional corepressor and regulates the cell cycle, probably via the HUSH complex (PubMed:<a href="http://www.uniprot.org/citations/15474462" target="\_blank">15474462</a>, PubMed:<a href="http://www.uniprot.org/citations/17963697" target="\_blank">17963697</a>). 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](http://www.uniprot.org/citations/30487602)). May be involved in epithelial differentiation by contributing to epidermal integrity and barrier formation (PubMed:[12853457](http://www.uniprot.org/citations/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

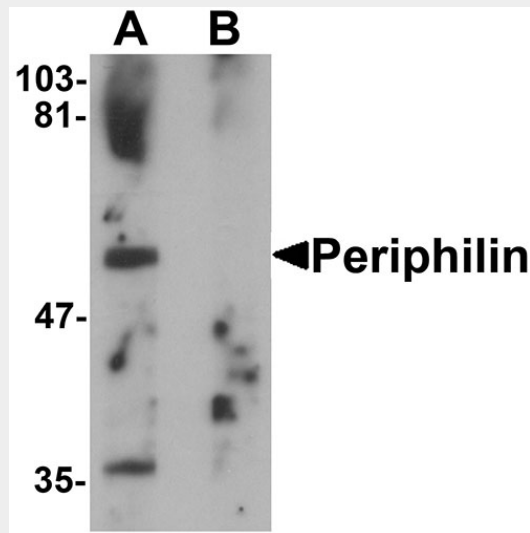
Ubiquitous..

### Periphilin Antibody - Protocols

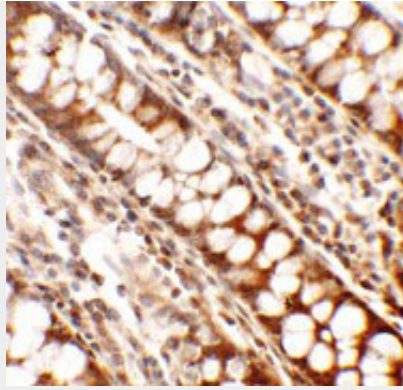
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

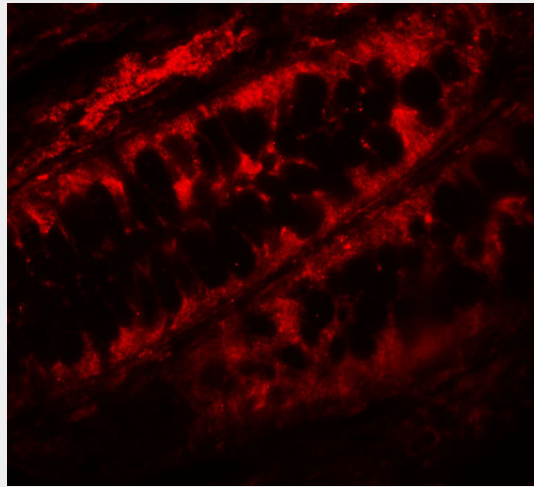
### Periphilin Antibody - Images



Western blot analysis of Periphilin in mouse colon tissue lysate with Periphilin antibody at 1  $\mu\text{g/mL}$  in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of Periphilin in human colon tissue with Periphilin antibody at 2.5 µg/mL.



Immunofluorescence of Periphilin in human colon tissue with Periphilin antibody at 5 µg/mL.

### **Periphilin Antibody - Background**

Periphilin Antibody: Periphilin, known as PPHLN1 or gastric cancer antigen Ga50, plays a role in epithelial differentiation and contributes to epidermal integrity and barrier formation. It interacts with periplakin, a known precursor of the cornified cell envelope. Periphilin 1 is ubiquitously expressed and localizes to nucleus and cytoplasm. Existing as eight alternatively spliced isoforms, Periphilin is highly insoluble and contains a putative nuclear localization signal (NLS) within its N-terminal half, a prerequisite for the formation of insoluble complexes and a possible caspase recognition sequence and a potential nuclear export signal. Periphilin may play an important role in the nervous system.

### **Periphilin Antibody - References**

- Kazerounian S and Aho S. Characterization of periphilin, a widespread, highly insoluble nuclear protein and potential constituent of the keratinocyte cornified envelope. *J. Biol. Chem.* 2003; 278:36707-17.
- Kurita M, Suzuki H, Masai H, et al. Overexpression of CR/periphilin downregulates Cdc7 expression and induces S-phase arrest. *Biochem. Biophys. Res. Commun.* 2004; 324:554-61
- Soehn AS, Pham TT, Schaeferhoff K, et al. Periphilin is strongly expressed in the murine nervous system and is indispensable for murine development. *Genesis* 2009; 47:697-707
- Soehn AS, Franck T, Biskup S, et al. Periphilin is a novel interactor of synphilin-1, a protein implicated in Parkinson's disease. *Neurogenetics* 2010; 11:203-15