

For Research Use Only

# PER1 Polyclonal antibody

Catalog Number: 13463-1-AP **15 Publications**



## Basic Information

<b>Catalog Number:</b> 13463-1-AP	<b>GenBank Accession Number:</b> BC028207	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 450 µg/ml	<b>GeneID (NCBI):</b> 5187	<b>Recommended Dilutions:</b> WB 1:500-1:3000 IHC 1:50-1:500 IF/ICC 1:20-1:200
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> O15534	
<b>Isotype:</b> IgG	<b>Full Name:</b> period homolog 1 (Drosophila)	
<b>Immunogen Catalog Number:</b> AG4249	<b>Calculated MW:</b> 1290 aa, 136 kDa	
	<b>Observed MW:</b> 50-55 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Cited Applications:**  
WB, IHC, IF, ChIP

**Species Specificity:**  
human, mouse, rat

**Cited Species:**  
human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** A549 cells, human brain tissue, mouse kidney tissue, mouse liver tissue

**IHC:** human breast cancer tissue, human tonsillitis tissue

**IF/ICC:** HeLa cells,

## Background Information

PER1 is a master regulator of circadian rhythm and functions in the nucleus to repress expression of the central circadian clock genes. The periodicity of PER1 abundance, nuclear translocation, and transcriptional repression is regulated by PER1 phosphorylation, ubiquitination, and proteasomal degradation [PMID: 21514639]. It is one component of the circadian clock mechanism which is essential for generating circadian rhythms. It can influence clock function by interacting with other circadian regulatory proteins and transporting them to the nucleus [PMID: 9856465, 20930143]. In addition to bands of the predicted molecular mass of 140 kDa, additional PER1 species of 55 and 45 kDa is detected that is predominantly nuclear [PMID: 11726537].

## Notable Publications

Author	Pubmed ID	Journal	Application
Mark A Naven	35664072	Theranostics	IF
Xinxing Wan	33741899	Cell Death Dis	WB
Yi-Dong Chen	35720196	Gastroenterol Rep (Oxf)	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

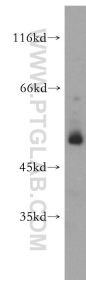
T: 4006900926

E: Proteintech-CN@ptglab.com

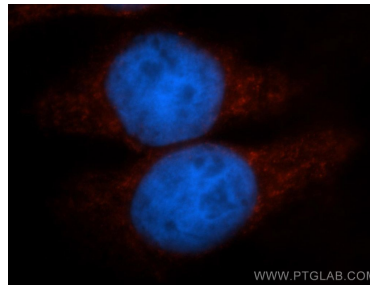
W: ptgcn.com

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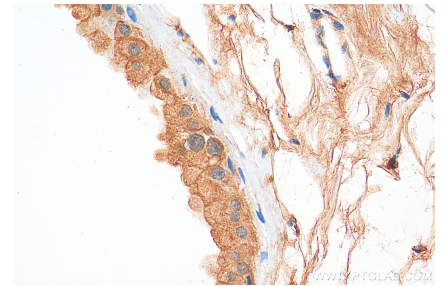
## Selected Validation Data



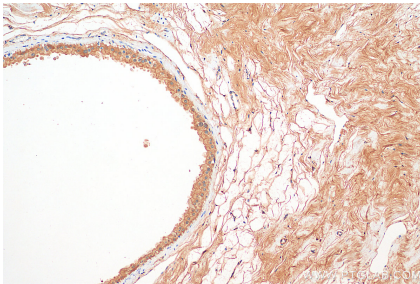
A549 cells were subjected to SDS PAGE followed by western blot with 13463-1-AP (PER1 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



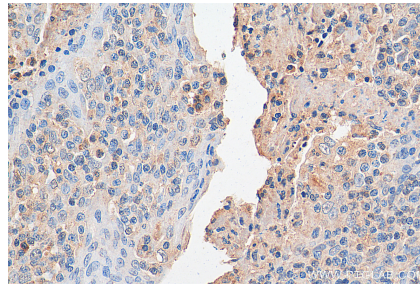
Immunofluorescent analysis of HeLa cells, using PER1 antibody 13463-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 13463-1-AP (PER1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 13463-1-AP (PER1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 13463-1-AP (PER1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).