




## Product datasheet

# Anti-PER2 antibody ab214209

[2 Images](#)

### Overview

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<b>Product name</b>	Anti-PER2 antibody
<b>Description</b>	Rabbit polyclonal to PER2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Rat <b>Predicted to work with:</b> Mouse, Human 
<b>Immunogen</b>	Synthetic peptide within Human PER2 aa 750-850 conjugated to keyhole limpet haemocyanin. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please <b>contact</b> our Scientific Support team to discuss your requirements. Database link: <a href="#">O15055</a>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	Rat skin and heart tissues.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), 1% BSA, 48.98% TBS, 1X
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Polyclonal

Isotype

IgG

## Applications

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### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab214209 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

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### Function

Component of the circadian clock mechanism which is essential for generating circadian rhythms. Negative element in the circadian transcriptional loop. Influences clock function by interacting with other circadian regulatory proteins and transporting them to the nucleus. Negatively regulates CLOCK  
NPAS2-BMAL1  
BMAL2-induced transactivation.

### Tissue specificity

Widely expressed. Found in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. High levels in skeletal muscle and pancreas. Low level in lung.

### Involvement in disease

Defects in PER2 are a cause of familial advanced sleep-phase syndrome (FASPS) [MIM:604348]. FASPS is characterized by very early sleep onset and offset. Individuals are 'morning larks' with a 4 hours advance of the sleep, temperature and melatonin rhythms.

### Sequence similarities

Contains 1 PAC (PAS-associated C-terminal) domain.  
Contains 2 PAS (PER-ARNT-SIM) domains.

### Post-translational modifications

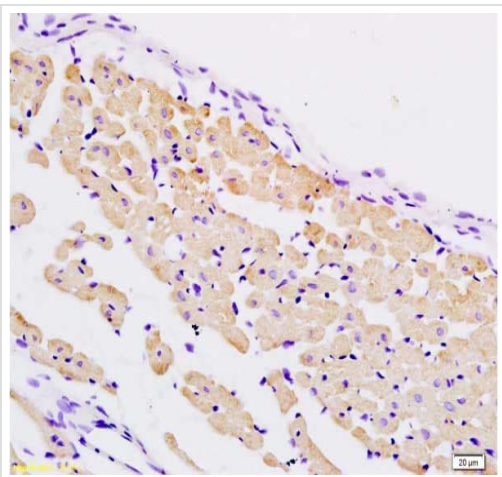
Phosphorylated by CSNK1E and CSNK1D. Phosphorylation results in PER2 protein degradation.

### Cellular localization

Nucleus. Cytoplasm. Mainly nuclear. Nucleocytoplasmic shuttling is effected by interaction with other circadian core oscillator proteins and/or by phosphorylation. Retention of PER1 in the cytoplasm occurs through PER1-PER2 heterodimer formation or by interaction with CSNK1E and/or phosphorylation which appears to mask the PER nuclear localization signal. Also translocated to the nucleus by CRY1 or CRY2.

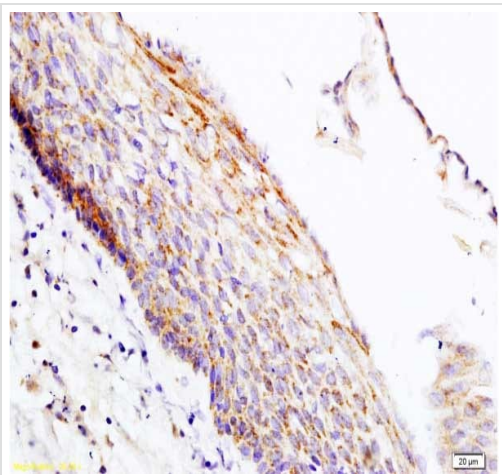
## Images

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PER2 antibody (ab214209)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat heart tissue labeling PER2 with ab214209 at 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PER2 antibody (ab214209)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat skin tissue labeling PER2 with ab214209 at 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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### **Terms and conditions**

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