

## Product datasheet

# Anti-PER1 antibody [2715C2] ab58886

1 Image

### Overview

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|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-PER1 antibody [2715C2]   |
| <b>Description</b>         | Mouse monoclonal [2715C2] to PER1   |
| <b>Host species</b>        | Mouse   |
| <b>Tested applications</b> | <b>Suitable for:</b> WB   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Recombinant fragment<br><b>Predicted to work with:</b> Human   |
| <b>Immunogen</b>           | Recombinant fragment of Human PER1  |
| <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.  |
| <b>Storage buffer</b>       | pH: 7.40<br>Preservative: 0.05% Sodium azide<br>Constituents: PBS, 0.0225% Potassium chloride, 0.03% Potassium phosphate, 0.1312% Sodium phosphate, 0.812% Sodium chloride, 1% BSA                                      |
| <b>Purity</b>               | Protein G purified  |
| <b>Purification notes</b>   | Purified using protein G column chromatography from culture supernatant of hybridoma cultured in a medium containing bovine IgG-depleted (approximately 95%) fetal bovine serum and filtered through a 0.22µm membrane. |
| <b>Clonality</b>            | Monoclonal  |
| <b>Clone number</b>         | 2715C2  |

Isotype

IgG1

## Applications

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### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab58886 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  |
|-------------|-----------|--|
| WB          |           | Use at an assay dependent concentration. Predicted molecular weight: 136 kDa. Antibody has only been tested on the recombinant fragment (immunogen). We have no data regarding endogenous samples. |

## 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, pancreas, kidney, spleen, thymus, prostate, testis, ovary and small intestine. Highest level in skeletal muscle. Low level in kidney.

### Sequence similarities

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

### Post-translational modifications

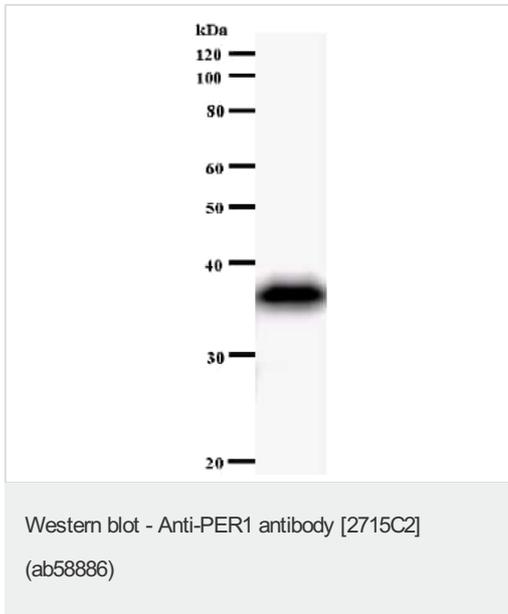
Phosphorylated on serine residues by CSNK1E. Also can be phosphorylated by the delta isoform. Phosphorylation by CSNK1 retains PER1 in the cytoplasm and leads to its ubiquitination and subsequent degradation. Phosphorylated upon DNA damage, probably by ATM or ATR. Ubiquitinated.

### 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 PER1 nuclear localization signal. Also translocated to the nucleus by CRY1 or CRY2.

## Images

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Anti-PER1 antibody [2715C2] (ab58886) + immunising recombinant fragment

**Predicted band size:** 136 kDa

The molecular weight of the band on the western blot does not correspond to the molecular weight of the natural protein because only a fragment of the protein was used.

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

### Our Abpromise to you: Quality guaranteed and expert technical support

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- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- 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

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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