



Rabbit Anti-PER1 protein antibody

SL2350R

Product Name:	PER1 protein
Chinese Name:	节律抑制蛋白PER1抗体
Alias:	Circadian clock protein PERIOD 1; Circadian clock protein PERIOD1; Circadian pacemaker protein Rigui; hPER 1; hPER; hPER1; KIAA0482; MGC88021; PER 1; PER; PER1; PER1 protein; PER1_HUMAN; Period 1; Period circadian protein homolog 1; Period drosophila homolog of; Period homolog 1; Period1; RIGUI.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	136kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PER1 protein:751-850/1290
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	In mammals, several genes that encode members of the basic helix-loop helix (bHLH) PAS (PER-ARNT-SIM) transcription factor family have been shown to play a significant role in regulating circadian oscillations. Transactivation of CLOCK-induced genes is mediated via an E box enhancer (CACGTG) found upstream of target genes.

CLOCK-ARNT 3 heterodimers bind to E box regulatory elements and stimulate gene transcription. CLOCK has been shown to transactivate the mammalian homolog of *Drosophila* PER. PER, in concert with the product of the mammalian timeless gene (TIM), negatively regulates its own transcription by blocking the activity of the CLOCK-BMAL 1 transactivation complex.

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. Can bind heme (By similarity).

Subunit:

Component of the circadian core oscillator, which includes the CRY proteins, CLOCK or NPAS2, BMAL1 or BMAL2, CSNK1D and/or CSNK1E, TIMELESS, and the PER proteins. Interacts directly with TIMELESS, PER2, PER3 and, through a C-terminal domain, with CRY1 and CRY2. Interaction with CSNK1D or CSNK1E promotes nuclear location of PER proteins. Interacts with GPRASP1 (By similarity). Binding to CSNK1G2 triggers proteasomal degradation.

Subcellular Location:

Nucleus (By similarity). Cytoplasm (By similarity). Note=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 (By similarity).

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.

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.

Ubiquitinated (By similarity).

Similarity:

Contains 1 PAC (PAS-associated C-terminal) domain.

Contains 2 PAS (PER-ARNT-SIM) domains.

SWISS:

O15534

Gene ID:
5187

Database links:

[Entrez Gene: 516318](#) Cow

[Entrez Gene: 489488](#) Dog

[Entrez Gene: 100731177](#) Guinea pig

[Entrez Gene: 100073046](#) Horse

[Entrez Gene: 5187](#) Human

[Entrez Gene: 18626](#) Mouse

[Entrez Gene: 100151739](#) Pig

[Entrez Gene: 287422](#) Rat

[Omim: 602260](#) Human

[SwissProt: O15534](#) Human

[SwissProt: O35973](#) Mouse

[SwissProt: Q8CHI5](#) Rat

[Unigene: 445534](#) Human

[Unigene: 7373](#) Mouse

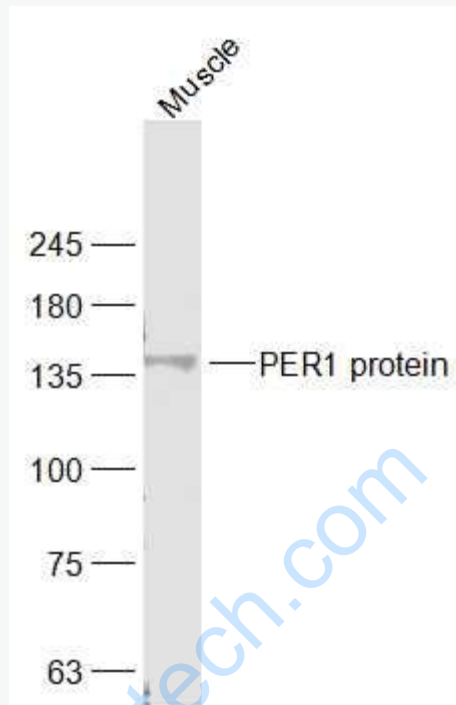
[Unigene: 34433](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Per1蛋白的作用是机体生理节奏调节的核心基因,也是影响Tumour发生发展的重要蛋白。调节机体生理节奏、调控细胞周期和促进DNA损伤修复等作用。Per1广泛参与了细胞的周期调控、DNA损伤修复、Apoptosis和Tumour细胞增殖等过程

Picture:



Sample:

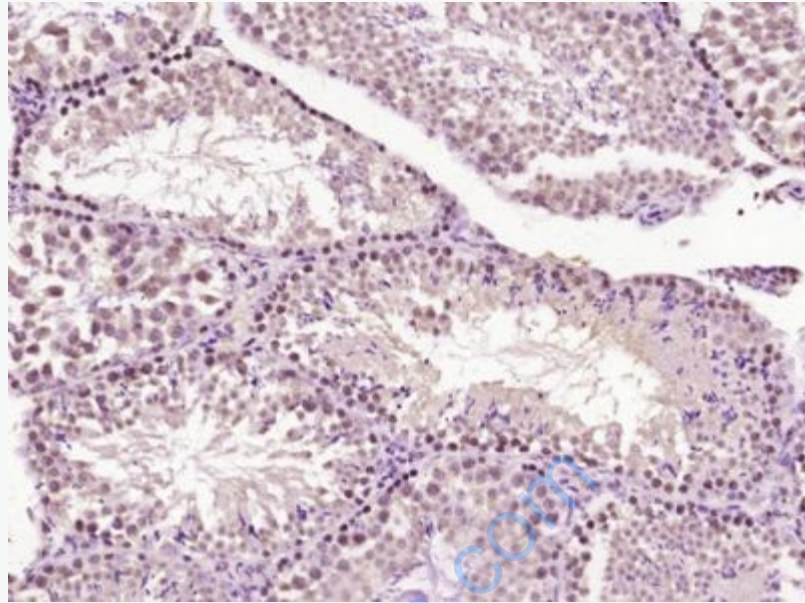
Muscle (Mouse) Lysate at 40 ug

Primary: Anti-PER1 protein (SL2350R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 136 kD

Observed band size: 136 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PER1 protein) Polyclonal Antibody, Unconjugated (SL2350R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.