abcam

Product datasheet

Recombinant Human PER2 protein ab112382

1 Image

Description

Product name	Recombinant Human PER2 protein
Biological activity	Useful for Antibody Production and Protein Array
Expression system	Wheat germ
Accession	O15055
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MNGYAEFPPSPSNPTKEPVEPQPSQVPLQEDVDMSSGS SGHETNENCSTG RDSQGSDCDDSGKELGMLVEPPDARQSPDTFSLMMAK SEHNPSTSGCSSD
Predicted molecular weight	37 kDa including tags
Amino acids	1 to 100

Specifications

Our **Abpromise guarantee** covers the use of **ab112382** in the following tested applications.

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

Applications	ELISA SDS-PAGE Western blot
Form	Liquid
Additional notes	This product is useful for Antibody Production and Protein Array.

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 8.00

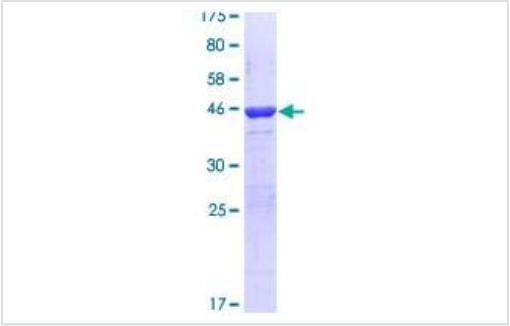
Constituents: 0.31% Glutathione, 0.79% Tris HCl

Glutathione is reduced

General Info

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



SDS-PAGE - Recombinant Human PER2 protein (ab112382)

ab112382 analysed by 12.5% SDS-PAGE and stained with Coomassie Blue.

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
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