

# Nocturnin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54504

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">Q9UK39</a>
<b>Reactivity</b>	Rat, Pig
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	48196
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human Nocturnin
<b>Epitope Specificity</b>	91-190/431
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SIMILARITY</b>	Belongs to the CCR4/nocturin family.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	Nocturnin is a 431 amino acid circadian deadenylase protein that is expressed in a broad range of tissues with greatest abundance in the liver, kidney and testis. Nocturnin plays a role in circadian regulation as well as diet-induced obesity. The mRNA abundance of Nocturnin exhibits circadian rhythmicity, peaking after dusk in photoreceptors, spleen, heart, kidney and liver. Nocturnin is thought to be responsible for turning off genes that are involved in circadian regulation. In Xenopus retinal photoreceptor cells, the rhythmic regulation of Nocturnin is thought to be controlled by phosphorylated CREB. Mice lacking Nocturnin remain lean on high fat diets with a reduction in visceral fat, which suggests that this protein may also be responsible for lipid metabolism and fat storage.

## Additional Information

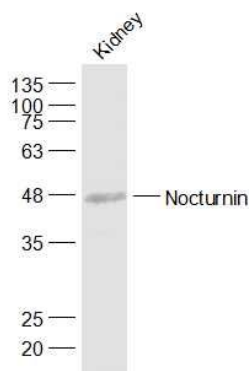
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<b>Gene ID</b>	25819
<b>Other Names</b>	Nocturnin {ECO:0000312   HGNC:HGNC:14254}, 3.1.3.-, Carbon catabolite repression 4-like protein, NOCT ( <a href="#">HGNC:14254</a> ), CCR4, CCRN4L, NOC
<b>Dilution</b>	WB=1:500-2000,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
<b>Storage</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

## Protein Information

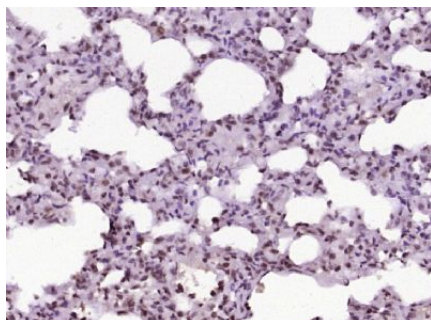
Name	NOCT ( <a href="#">HGNC:14254</a> )
Synonyms	CCR4, CCRN4L, NOC
Function	Phosphatase which catalyzes the conversion of NADP(+) to NAD(+) and of NADPH to NADH (PubMed: <a href="#">31147539</a> ). Shows a small preference for NADPH over NADP(+) (PubMed: <a href="#">31147539</a> ). Represses translation and promotes degradation of target mRNA molecules (PubMed: <a href="#">29860338</a> ). Plays an important role in post-transcriptional regulation of metabolic genes under circadian control (By similarity). Exerts a rhythmic post- transcriptional control of genes necessary for metabolic functions including nutrient absorption, glucose/insulin sensitivity, lipid metabolism, adipogenesis, inflammation and osteogenesis (By similarity). Plays an important role in favoring adipogenesis over osteoblastogenesis and acts as a key regulator of the adipogenesis/osteogenesis balance (By similarity). Promotes adipogenesis by facilitating PPARG nuclear translocation which activates its transcriptional activity (By similarity). Regulates circadian expression of NOS2 in the liver and negatively regulates the circadian expression of IGF1 in the bone (By similarity). Critical for proper development of early embryos (By similarity).
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:O35710}. Nucleus {ECO:0000250 UniProtKB:O35710}. Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:O35710}. Mitochondrion
Tissue Location	Adipose tissue. Expression is higher in subcutaneous adipose tissue as compared to visceral adipose tissue

## Images

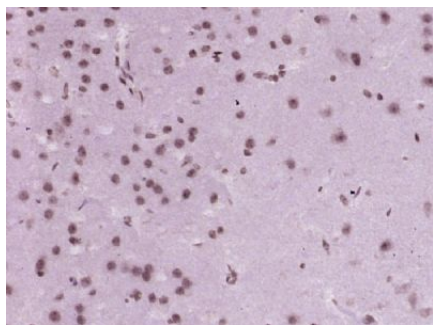


### Sample:

Kidney (Mouse) Lysate at 40 ug  
Primary: Anti-Nocturnin (AP54504) at 1/1000 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 48 kD  
Observed band size: 48 kD



Paraformaldehyde-fixed, paraffin embedded (Rat lung);  
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 (Nocturnin) Polyclonal Antibody, Unconjugated (AP54504) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); 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 (Nocturnin) Polyclonal Antibody, Unconjugated (AP54504) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.