

# Nocturnin (H-120): sc-135002

## BACKGROUND

Nocturnin, also known as CCRN4L or NOC, 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.

## REFERENCES

- Green, C.B. and Besharse, J.C. 1996. Identification of a novel vertebrate circadian clock-regulated gene encoding the protein nocturnin. *Proc. Natl. Acad. Sci. USA* 93: 14884-14888.
- Liu, X. and Green, C.B. 2001. A novel promoter element, photoreceptor conserved element II, directs photoreceptor-specific expression of nocturnin in *Xenopus laevis*. *J. Biol. Chem.* 276: 15146-15154.

## CHROMOSOMAL LOCATION

Genetic locus: CCRN4L (human) mapping to 4q31.1; Ccrn4l (mouse) mapping to 3 C.

## SOURCE

Nocturnin (H-120) is a rabbit polyclonal antibody raised against amino acids 201-320 mapping within an internal region of Nocturnin of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Nocturnin (H-120) is recommended for detection of Nocturnin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nocturnin (H-120) is also recommended for detection of Nocturnin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Nocturnin siRNA (h): sc-62697, Nocturnin siRNA (m): sc-62698, Nocturnin shRNA Plasmid (h): sc-62697-SH, Nocturnin shRNA Plasmid (m): sc-62698-SH, Nocturnin shRNA (h) Lentiviral Particles: sc-62697-V and Nocturnin shRNA (m) Lentiviral Particles: sc-62698-V.

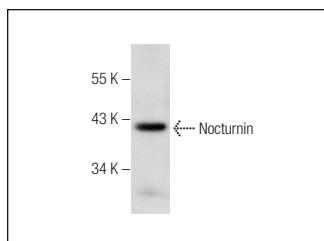
Molecular Weight of Nocturnin: 48 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Nocturnin (H-120): sc-135002. Western blot analysis of Nocturnin expression in Jurkat whole cell lysate.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Nocturnin (F-4): sc-376584**, our highly recommended monoclonal alternative to Nocturnin (H-120).