

Product datasheet for **AP13097PU-N**

Cryptochrome I (CRY1) (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1/1,000. Western blotting: 1/100 - 1/500. Immunohistochemistry: 1/50 - 1/100.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide C-terminal region of human Cry1.
Specificity:	This antibody reacts to CRY1.
Formulation:	PBS with 0.09% (W/V) sodium azide State: Purified State: Liquid purified Ig
Concentration:	lot specific
Purification:	Protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	cryptochrome circadian clock 1
Database Link:	Entrez Gene 1407 Human Q16526



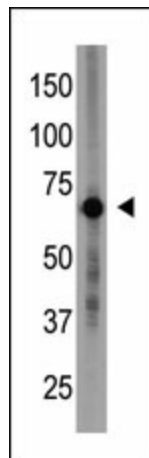
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Background:

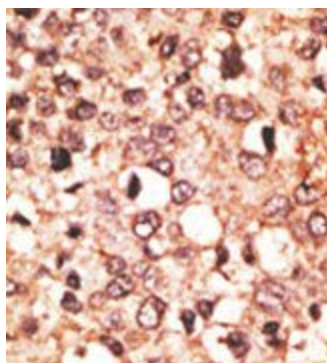
Various biochemical, physiological and behavioural processes display circadian rhythms controlled by an internal biological clock. The central gears driving this clock appear to be composed of an autoregulatory transcription/posttranslation-based feedback loop. Cryptochrome 1 (CRY1) and 2 (CRY2) are DNA-binding flavoproteins that bear some homology to blue-light receptors and photolyases. In *Drosophila*, CRY is a photoreceptor for the circadian clock where it binds to the clock component TIM in a light-dependent fashion and blocks its function. Mammalian CRY1 and CRY2 function via light-independent interactions with circadian genes CLOCK and BMAL1, as well as with PER1, PER2, and TIM. They seem to act as light-independent components of the circadian clock and likely regulate Per1 transcriptional cycling via interactions with both the activator and its feedback inhibitors. Mutant mice not expressing the Cry1 or Cry2 protein display accelerated and delayed periodicity of locomotor activity, respectively. It appears that the combination of both proteins working together is essential to synchronize the organism to circadian phases. A critical balance between Cry1 and Cry2 is required for proper clock function; in complete darkness, double-mutant mice present with instantaneous arrhythmicity, indicating the absence of an internal circadian clock.

Synonyms:

CRY1, PHLL1

Product images:

The anti-Cry1 N-term Pab is used in Western blot to detect Cry1 in placenta tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining.