Datasheet for ABIN390080

anti-CRY2 antibody (C-Term)

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Overview

Quantity:	400 µL
Target:	CRY2
Binding Specificity:	AA 564-593, C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CRY2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This Cry2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 564-593 amino acids from the C-terminal region of human Cry2.
Clone:	RB1846
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	CRY2
Alternative Name:	Cry2 (CRY2 Products)

Target Details

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.
Molecular Weight:	66947
Gene ID:	1408
NCBI Accession:	NP_001120929, NP_066940
UniProt:	Q49AN0
Pathways:	Response to Water Deprivation, Protein targeting to Nucleus

Application Details

Application Notes:	WB: 1:1000. WB: 1:1000. WB: 1:1000. IHC-P: 1:50~100
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

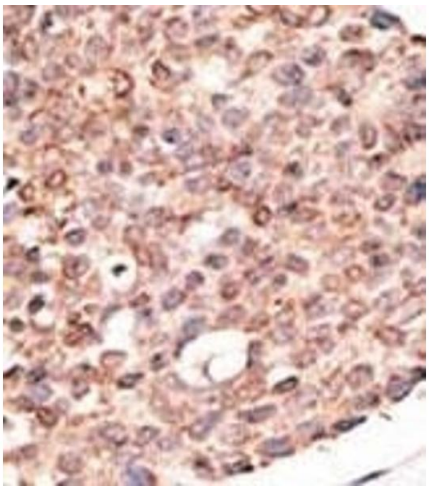
Handling

Handling Advice:	Avoid freeze-thaw cycles.
Storage:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots.
Expiry Date:	6 months

Publications

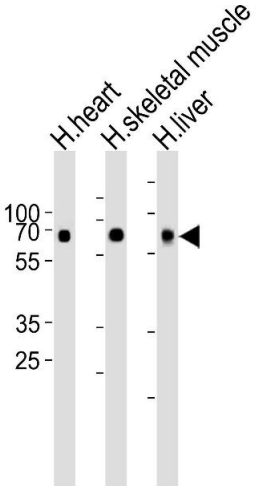
Product cited in:	Wang, Wang, Liu, Liu, Tay, Walsh, Yang, Wu: "CRISPR/Cas9 mediated genome editing of Helicoverpa armigera with mutations of an ABC transporter gene HaABCA2 confers resistance to Bacillus thuringiensis Cry2A toxins." in: **Insect biochemistry and molecular biology**, Vol. 87, pp. 147-153, (2017) (PubMed).

Images



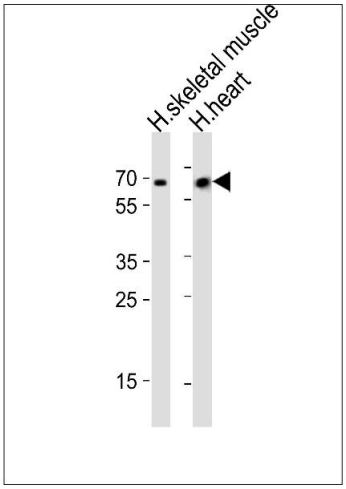
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated. BC = breast carcinoma, HC = hepatocarcinoma.



Western Blotting

Image 2. Western blot analysis of lysates from human heart, skeletal muscle and liver tissue lysate (from left to right), using Cry2 Antibody A. A was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35 µg per lane.



Western Blotting

Image 3. Western blot analysis of lysates from human skeletal muscle and human heart tissue (from left to right), using Cry2 Antibody A. A was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20 µg per lane.