SunLong Biotech Co.,LTD
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Mouse Anti-CRY2 antibody

SLM-51684M

Product Name	CRY2
Chinese Name	隐色素-2 单克隆抗体
Alias	CRY2_HUMAN; cryptochrome 2 (photolyase like); Cryptochrome2; Cryptochrome 2; Cryptochrome-2; FLJ10332; growth inhibiting protein 37; HCRY2; KIAA0658; PHLL2; Photolyase like.
Research Area	Cell biology Neurobiology
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	Q3W3
React Species	Human, Mouse,
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	65kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant human Cry2.
Lsotype	IgG1,k
Purification	affinity purified by Protein G
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	This gene encodes a flavin adenine dinucleotide-binding protein that is a key component of the circadian core oscillator complex, which regulates the

circadian clock. This gene is upregulated by CLOCK/ARNTL heterodimers but then represses this upregulation in a feedback loop using PER/CRY heterodimers to interact with CLOCK/ARNTL. Polymorphisms in this gene have been associated with altered sleep patterns. The encoded protein is widely conserved across plants and animals. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2014]

Function:
Lamins are components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane, which is thought to provide a framework for the nuclear envelope and may also interact with chromatin. Lamin A and C are present in equal amounts in the lamina of mammals. Play an important role in nuclear assembly, chromatin organization, nuclear membrane and telomere dynamics.
Prelamin-A/C can accelerate smooth muscle cell senescence. It acts to disrupt mitosis and induce DNA damage in vascular smooth muscle cells (VSMCs), leading to mitotic failure, genomic instability, and premature senescence.

Subunit:
Component of the circadian core oscillator, which includes the CRY proteins, CLOCK or NPAS2, ARNTL or ARNTL2, CSNK1D and/or CSNK1E, TIMELESS, and the PER proteins. Interacts directly with PER1 and PER2 C-terminal domains. Interaction with PER2 inhibits its ubiquitination and vice versa. Interacts with NFIL3. Interacts with FBXL3.

Subcellular Location:
Cytoplasm. Nucleus. Translocated to the nucleus through interaction with other Clock proteins such as PER2 or ARNTL.

Tissue Specificity:
Expressed in all tissues examined including fetal brain, fibroblasts, heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis, ovary, small intestine, colon and leukocytes. Highest levels in heart and skeletal muscle.

Post-translational modifications:
Phosphorylation on Ser-266 by MAPK is important for the inhibition of CLOCK-ARNTL-mediated transcriptional activity. Phosphorylation by CSKNE requires interaction with PER1 or PER2.
Ubiquitinated by the SCF(FBXL3) and SCF(FBXL21) complex, leading to its degradation.

DISEASE:

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Belongs to the DNA photolyase class-1 family.
Contains 1 DNA photolyase domain.

Similarity:
Belongs to the intermediate filament family.

SWISS:
Q49AN0

Gene ID:
1408

Database links:

Entrez Gene: 1408 Human

Entrez Gene: 12953 Mouse

SwissProt: Q49AN0 Human

SwissProt: Q9R194 Mouse

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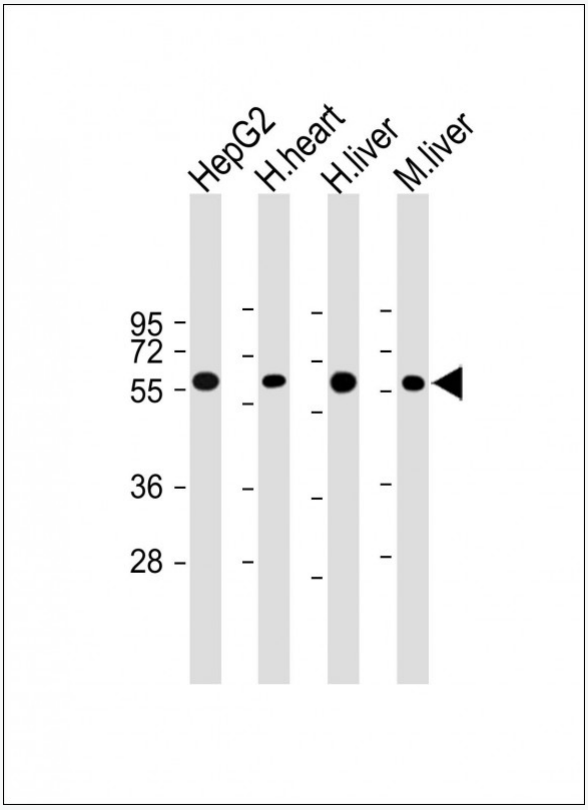
Product Picture



Sample:

Lane 1: HepG2 cell lysates

Lane 3: Human heart tissue lysates

Lane 3: Human liver tissue lysates

Lane 4: Mouse liver tissue lysates

Primary: Anti-CRY2 (SLM-51684M) at 1/4000 dilution

Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 65 kD

Observed band size: 60 kD