

产品名称: Clock Rabbit Polyclonal Antibody

产品货号: APRab09060

产品概述 (Summary)

描述(Description)	Rabbit polyclonal Antibody
宿主(Host)	Rabbit
应用(Application)	WB,IHC,ICC/IF,ELISA
种属反应(Reactivity)	Human,Mouse,Rat
偶联物(Conjugation)	Unconjugated
修饰(Modification)	Unmodified
同种型(Isotype)	IgG
克隆(Clonality)	Polyclonal
剂型(Form)	Liquid
保存条件(Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液(Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化 (Purification)	Affinity purification

产品应用(Application)

稀释比(Dilution Ratio)	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
分子量(Molecular Weight)	95kDa

抗原信息(Antigen Information)

基因名(Gene Name)	CLOCK
别名(Alternative Names)	CLOCK; BHLHE8; KIAA0334; Circadian locomoter output cycles protein kaput; hCLOCK; Class E basic helix-loop-helix protein 8; bHLHe8
基因 ID(Gene ID)	9575.0
SwissProt ID	O15516
免疫原(Immunogen)	The antiserum was produced against synthesized peptide derived from human Clock. AA range:241-290

研究背景 (Background)

The protein encoded by this gene plays a central role in the regulation of circadian rhythms. The protein encodes a transcription

factor of the basic helix-loop-helix (bHLH) family and contains DNA binding histone acetyltransferase activity. The encoded protein forms a heterodimer with ARNTL (BMAL1) that binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. Polymorphisms in this gene may be associated with behavioral changes in certain populations and with obesity and metabolic syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014],catalytic activity:Acetyl-CoA + histone = CoA + acetylhistone.,function:ARNTL/2-CLOCK heterodimers activate E-box element (3'-CACGTG-5') transcription of a number of proteins of the circadian clock. Activates transcription of PER1 and PER2. This transcription is inhibited in a feedback loop by PER and CRY proteins. Has intrinsic histone acetyltransferase activity and this enzymatic function contributes to chromatin-remodeling events implicated in circadian control of gene expression (By similarity). Acetylates primarily histones H3 and H4 (By similarity). Acetylates also a non-histone substrate: ARNTL.,miscellaneous:CLOCK-ARNTL double mutations within the PAS domains result in synergistic desensitization to high levels of CRY on repression of CLOCK-ARNTL transcriptional activity of PER1 and disrupt circadian rhythmicity.,PTM:Phosphorylation is dependent on CLOCK-ARNTL heterodimer formation.,similarity:Contains 1 basic helix-loop-helix (bHLH) domain.,similarity:Contains 1 PAC (PAS-associated C-terminal) domain.,similarity:Contains 2 PAS (PER-ARNT-SIM) domains.,subcellular location:Shuffling between the cytoplasm and the nucleus is under circadian regulation and is ARNTL-dependent. Phosphorylated form located in the nucleus.,subunit:Component of the circadian clock oscillator which includes the CRY proteins, CLOCK or NPAS2, ARNTL or ARNTL2, CSNK1D and/or CSNK1E, TIMELESS and the PER proteins. Efficient DNA binding requires dimerization with another bHLH protein. Heterodimerization with ARNTL is required for E-box-dependent transactivation, for CLOCK nuclear translocation and degradation, and, for phosphorylation of both CLOCK and ARNTL. Interaction with PER and CRY proteins requires translocation to the nucleus. Interaction of the CLOCK-ARNTL heterodimer with PER or CRY inhibits transcription activation. Binds weakly ARNTL and ARNTL2 to form heterodimers which bind poorly to the E-box motif.,tissue specificity:Expressed in all tissues examined including spleen, thymus, prostate, testis, ovary, small intestine, colon, leukocytes, heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Highest levels in testis and skeletal muscle. Low levels in thymus, lung and liver. Expressed in all brain regions with highest levels in cerebellum. Highly expressed in the suprachiasmatic nucleus (SCN).,

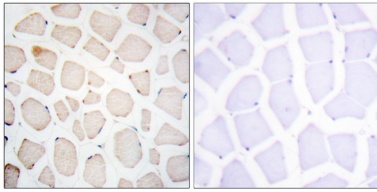
研究领域 (Research Area)

Protein_Acetylation

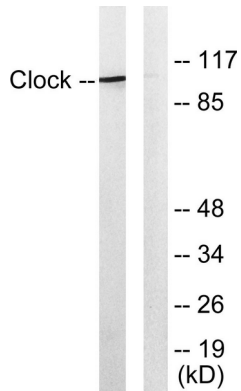
注意事项 (Note)

For research use only.

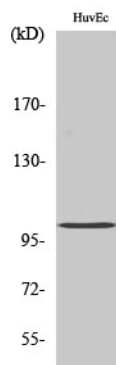
图片 (Image Data)



Immunohistochemistry analysis of paraffin-embedded human skeletal muscle tissue, using Clock Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HUVEC cells, using Clock Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Clock Polyclonal Antibody

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产品类别	产品货号	产品名称
WB 解决方案	RA10020	2h 极速 WB 即用型全流程试剂盒
	RA10021	4h 快速 WB 即用型全流程试剂盒
	RA10042	5h 畅享版 WB 全流程试剂盒
	RA10037	校准级彩色预染蛋白 Marker (8-180kDa)
	RA10038	校准级彩色预染蛋白 Marker (10-250kDa)
	RA10039	校准级高分子彩色预染蛋白 Marker (25-400kDa)
TSA 多重荧光染色试剂盒	RA10008	TSA 双标三色多重荧光染色试剂盒 (mIHC)
	RA10009	TSA 三标四色多重荧光染色试剂盒 (mIHC)
	RA10010	TSA 四标五色多重荧光染色试剂盒 (mIHC)
	RA10011	TSA 五标六色多重荧光染色试剂盒 (mIHC)
	RA10012	TSA 六标七色多重荧光染色试剂盒 (mIHC)
IHC 检测试剂盒	RA10006	HRP Anti-Mouse/Rabbit IHC Detection System
	RA10007	Polymer-HRP Anti-Mouse/Rabbit IHC Detection System
抗体标记试剂盒	RE80004p	辣根过氧化物酶(HRP)抗体标记试剂盒
	RE80002q	Sulfo-NHS-生物素标记试剂盒
	RE80007p	Cy3 荧光素标记试剂盒
	RE80011p	Fluor488 荧光素标记试剂盒
	RE80017p	Fluor750 荧光素标记试剂盒
	RE80005p	藻红蛋白(R-PE) 抗体快速标记试剂盒
	RE80040	PE-Cy7 串联染料抗体快速标记试剂盒
稳转细胞系构建服务 (免费赠送全膜 WB 验证)	TS-0001	过表达稳转细胞系构建
	TS-0002	敲低稳转细胞系构建
	TS-0003	敲除细胞系构建

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