## abcam

#### Product datasheet

# Recombinant Human KAT13D / CLOCK protein ab153001

### 1 Image

**Description** 

Product name Recombinant Human KAT13D / CLOCK protein

**Expression system** Wheat germ

Protein length Protein fragment

Animal free No

Nature Recombinant

**Species** Human

**Sequence** PVMSQATNLPIPQGMSQFQFSAQLGAMQHLKDQLEQRTR

MIEANIHRQQE

 ${\sf ELRKIQEQLQMVHGQGLQMFLQQSNPGLNFGSVQLSSGN}$ 

SSNIQQLAPIN

Amino acids 497 to 596

Tags GST tag N-Terminus

#### **Specifications**

Our Abpromise guarantee covers the use of ab153001 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** ELISA

Western blot

Form Liquid

**Additional notes** 

#### **Preparation and Storage**

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.31% Glutathione, 0.79% Tris HCI

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#### **General Info**

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.

**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).

Sequence similarities Contains 1 basic helix-loop-helix (bHLH) domain.

Contains 1 PAC (PAS-associated C-terminal) domain.

Contains 2 PAS (PER-ARNT-SIM) domains.

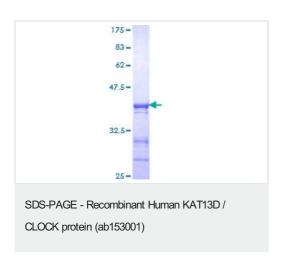
Post-translational modifications

Phosphorylation is dependent on CLOCK-ARNTL heterodimer formation.

**Cellular localization** Cytoplasm. Nucleus. Shuffling between the cytoplasm and the nucleus is under circadian

regulation and is ARNTL-dependent. Phosphorylated form located in the nucleus.

#### **Images**



ab153001 on a 12.5% SDS-PAGE stained with Coomassie Blue.

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