

## Product datasheet

# KAT13D / CLOCK peptide ab5854

### Description

---

<b>Product name</b>	KAT13D / CLOCK peptide
<b>Purity</b>	> 95 % SDS-PAGE.
<b>Animal free</b>	No
<b>Nature</b>	Synthetic

### Specifications

---

Our [Abpromise guarantee](#) covers the use of **ab5854** in the following tested applications.

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

<b>Applications</b>	Blocking
<b>Form</b>	Lyophilized
<b>Additional notes</b>	

This peptide may be used for neutralization and control experiments with the polyclonal antibody that reacts with this product and mouse CLOCK, catalog [ab3517](#). Using a solution of peptide of equal volume and concentration to the corresponding antibody will yield a large molar excess of peptide (70-fold) for competitive inhibition of antibody-protein binding reactions.

### Preparation and Storage

---

<b>Stability and Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Reconstitution</b>	Reconstitute with 0.1 mL of distilled water.

### General Info

---

<b>Function</b>	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.
<b>Tissue specificity</b>	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.

---

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### **Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

#### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors