


Product datasheet

Anti-KAT13D / CLOCK antibody ab93804

2 Images

Overview

<b>Product name</b>	Anti-KAT13D / CLOCK antibody
<b>Description</b>	Rabbit polyclonal to KAT13D / CLOCK
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Guinea pig, Chimpanzee, Rhesus monkey, Gorilla, Orangutan 
<b>Immunogen</b>	Synthetic peptide, corresponding to a region within amino acids 796-846 of Human KAT13D/ CLOCK (NP_004889.1)
<b>Positive control</b>	HeLa and 293T whole cell lysate

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.09% Sodium Azide Constituents: Tris citrate/phosphate, pH 7-8
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab93804 was affinity purified using an epitope specific to KAT13D/CLOCK immobilized on solid support.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab93804** in the following tested applications.

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

Application	Abreviews	Notes
WB		
IP		

## Application notes

IP: Use at a concentration of 2-5 µg/ml.

WB: 1/2000 - 1/10000. Predicted molecular weight: 95 kDa.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

## Target

### 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.

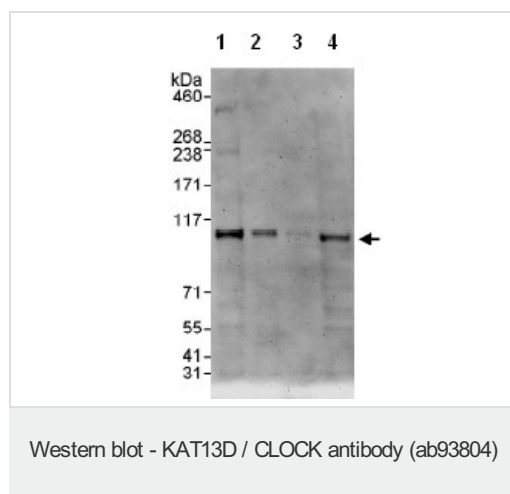
### Post-translational modifications

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



**All lanes** : Anti-KAT13D / CLOCK antibody

(ab93804) at 0.1 µg/ml

**Lane 1** : HeLa at 50 µg

**Lane 2** : HeLa at 15 µg

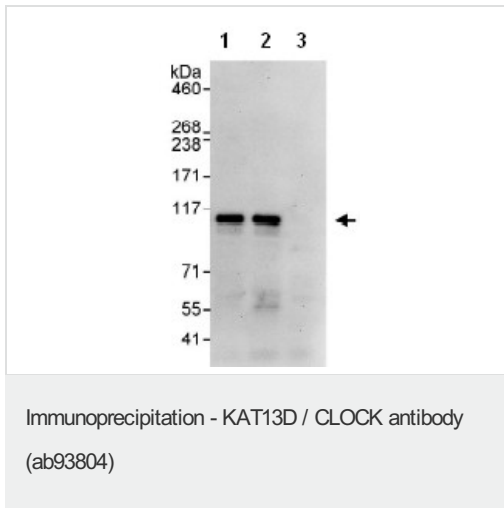
**Lane 3** : HeLa at 5 µg

**Lane 4** : 293T at 50 µg

Developed using the ECL technique

**Predicted band size** : 95 kDa

**Exposure time** : 3 minutes



ab93804 at 1  $\mu\text{g/ml}$  detecting KAT13D/CLOCK in HeLa whole cell lysate by WB following IP.

Lane 1: IP with an antibody which recognizes an upstream epitope of KAT13D/CLOCK

Lane 2: ab93804 at 3 $\mu\text{g/mg}$  of lysate

Lane 3: control IgG.

In each case, 1 mg of lysate was used for IP and 20% of the IP was loaded.

Detection: Chemiluminescence with an exposure time of 30 seconds

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