

## Anti-BMAL1 Antibody (5D959)

### Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 68 kDa.
Clone:	5D959
Purification:	ProA affinity purified

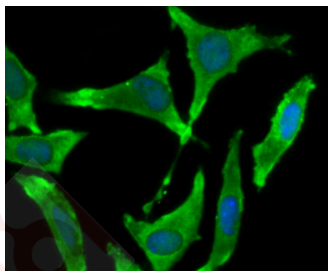
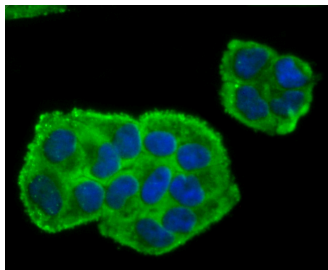
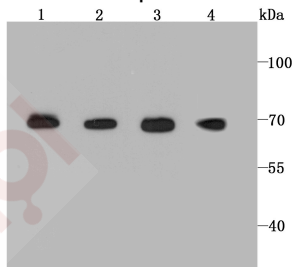
### Applications

1. Western blot analysis of BMAL1 on different lysates using anti-BMAL1 antibody at 1/1,000 dilution. Positive control: Lane 1: NIH/3T3, Lane 2: Rat brain, Lane 3: Mouse spleen, Lane 4: Hela.

Verified Activity:

2. ICC staining BMAL1 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

3. ICC staining BMAL1 in SH-SY5Y cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Application: ICC/IF,WB

Recommended WB: 1:1000-2000; ICC/IF: 1:50-200

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

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### Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: O00327

Synonyms: bHLH-PAS protein JAP3; PAS domain-containing protein 3; TIC; Brain and muscle ARNT-like 1; MOP3; BMAL1; PASD3; Member of PAS protein 3; ARNTL; ARNTL1; BMAL1c; BHLHE5; Aryl hydrocarbon receptor nuclear translocator-like protein 1; Class E basic helix-loop-helix protein 5 (bHLHe5); Basic-helix-loop-helix-PAS protein MOP3; Basic helix-loop-helix ARNT-like protein 1

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### Research Background

Transcriptional activator which forms a core component of the circadian clock. Transcription factors, CLOCK or NPAS2 and ARNTL/BMAL1 or ARNTL2/BMAL2, form the positive limb of the feedback loop, act in the form of a heterodimer and activate the transcription of core clock genes and clock-controlled genes (involved in key metabolic processes), harboring E-box elements (5'-CACGTG-3') within their promoters. The core clock genes: PER1/2/3 and CRY1/2 which are transcriptional repressors form the negative limb of the feedback loop and interact with the CLOCK|NPAS2-ARNTL/BMAL1|ARNTL2/BMAL2 heterodimer inhibiting its activity and thereby negatively regulating their own expression. This heterodimer also activates nuclear receptors NR1D1/2 and RORA/B/G, which form a second feedback loop and which activate and repress ARNTL/BMAL1 transcription, respectively. ARNTL/BMAL1 positively regulates myogenesis and negatively regulates adipogenesis via the transcriptional control of the genes of the canonical Wnt signaling pathway.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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