Code No.KI045

For research use only

Anti Human PERIOD 2 Polyclonal Antibody

Most organisms show circadian 24-h rhythmicity in their behavior and phsysiology. In mammals, biological clock is located in the suprachiasmatic nucleus (SCN), generates circadian rhythms in behaviour and physiology. These biological rhythms are adjusted daily to the environmental light/dark cycle via the retinohypothalamic tract (RHT). Three mammalian priod genes (*per1, per2,* and *per3*) that resemble the clock-regulating gene of *Dorosophia melangaster, period*（*per* ）, have been cloned. Circadian clocks are also located in peripheral tissues of mammals that are synchronized by the SCN. A molecular description of the mammalian circadian system has revealed that circadian oscillations may be a fundamental property of many cells in the body. It has been shown that *PERIOD2* gene also plays a important role in circadian control in humans. Mutations in hPer2 result in familial advanced sleep phase syndrome (Ref.14).

This antibody is useful tool to clarify molecular functions that regulate biological clock.

Package Size	200 μ g(200 μ L／vial)
Format	Rabbit polyclonal antibody , 1 mg/mL
Buffer	Block Ace as a stabilizer, containing 0.1% Proclin as a bacteriostat
Storage	Below –20℃ until needed.
Purification method	This antibody was purified from rabbit serum by Protein G affinity chromatography.
Working dilution	For Western blotting ; 5～10 μg/mL

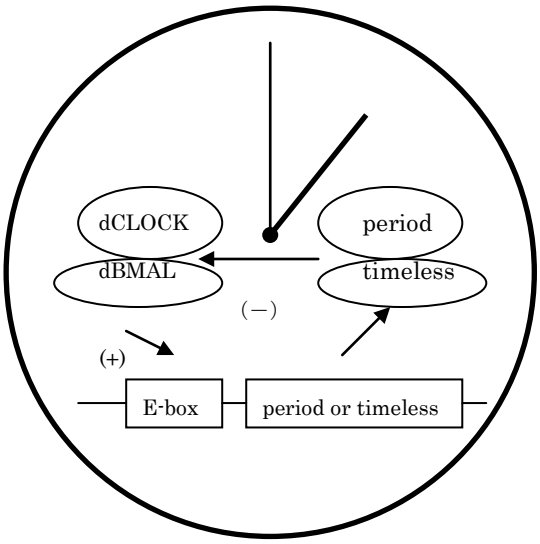

Fig.
The negative feedback model of molecular biological clock.

CLOCK-BMAL dimmers were shown to transactivate the expression of *period* and *timeless* genes. Futhermore, PER-TIM plays a role as the repressor of CLOCK-BMAL-mdiated reporter induction.

Ref.1

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* Application Reference

Manufacturer

Medicinal Chemistry Pharmaceutical Co., Ltd.

Kobe Research Institute
7-1-14 Minatojimaminami-machi, Chuo-ku, Kobe, Japan 650-0047
Telephone: +81-78-945-7075　FAX:+81-78-306-0694
URL:https://soyaku.co.jp/english/　tech-kobe@soyaku.co.jp

Previous manufacturer

Trans Genic Inc.