

Rabbit anti-Human, Mouse PER3 Polyclonal Antibody | anti-PER3 antibody

PER3 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA233259	Rabbit	Human, Mouse	Immunofluorescence, Immunohistochemistry, Western Blot, ELISA

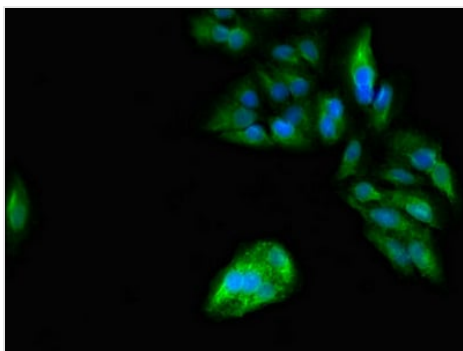
PRODUCT SYNONYMS

PER3; Polyclonal Antibody; PER3 Antibody; Period circadian protein homolog 3; hPER3; Cell growth-inhibiting gene 13 protein; Circadian clock protein PERIOD 3; GIG13; anti-PER3 antibody

PRODUCT SPECIFICATIONS

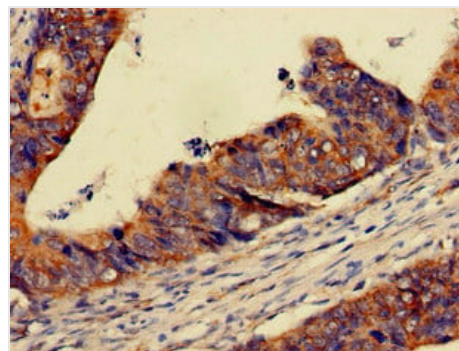
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	>95%, Protein G purified
Form/Format	Liquid
Sequence Length	1191
Applicable Applications for anti-PER3 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot), ELISA
Immunogen	Recombinant Human Period circadian protein homolog 3 protein (1-131AA)
Conjugation	Non-conjugated
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, pH 7.4
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.

IMAGES



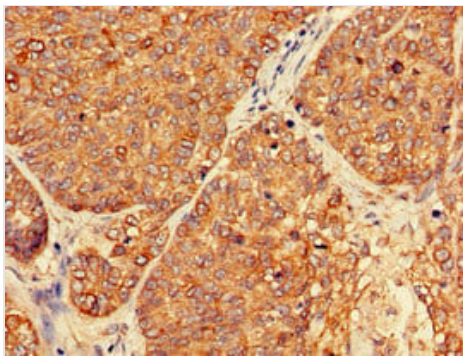
IF (Immunofluorescence)

Immunofluorescent analysis of HeLa cells using AAA233259 at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



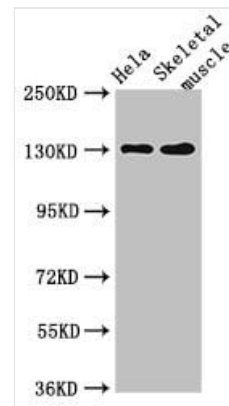
IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded human colon cancer using AAA233259 at dilution of 1:100.



IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded human ovarian cancer using AAA233259 at dilution of 1:100



WB (Western Blot)

Western Blot Positive WB detected in: HeLa whole cell lysate, Mouse skeletal muscle tissue. All lanes: PER3 antibody at 4 µg/ml. Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution. Predicted band size: 132, 133 kDa. Observed band size: 132 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PER3 antibody

Originally described as a core component of the circadian clock. The circadian clock, an internal time-keeping system, regulates various physiological processes through the generation of approximately 24 hour circadian rhythms in gene expression, which are translated into rhythms in metabolism and behavior. It is derived from the Latin roots 'circa' (about) and 'diem' (day) and acts as an important regulator of a wide array of physiological functions including metabolism, sleep, body temperature, blood pressure, endocrine, immune, cardiovascular, and renal function. Consists of two major components: the central clock, residing in the suprachiasmatic nucleus (SCN) of the brain, and the peripheral clocks that are present in nearly every tissue and organ system. Both the central and peripheral clocks can be reset by environmental cues, also known as Zeitgebers (German for 'timegivers'). The predominant Zeitgeber for the central clock is light, which is sensed by retina and signals directly to the SCN. The central clock entrains the peripheral clocks through neuronal and hormonal signals, body temperature and feeding-related cues, aligning all clocks with the external light/dark cycle. Circadian rhythms allow an organism to achieve temporal homeostasis with its environment at the molecular level by regulating gene expression to create a peak of protein expression once every 24 hours to control when a particular physiological process is most active with respect to the solar day. Transcription and translation of core clock components (CLOCK, NPAS2, ARNTL/BMAL1, ARNTL2/BMAL2, PER1, PER2, PER3, CRY1 and CRY2) plays a critical role in rhythm generation, whereas delays imposed by post-translational modifications (PTMs) are important for determining the period (tau) of the rhythms (tau refers to the period of a rhythm and is the length, in time, of one complete cycle). A diurnal rhythm is synchronized with the day/night cycle, while the ultradian and infradian rhythms have a period shorter and longer than 24 hours, respectively. Disruptions in the circadian rhythms contribute to the pathology of cardiovascular diseases, cancer, metabolic syndromes and aging. A transcription/translation feedback loop (TTFL) forms the core of the molecular circadian clock mechanism. 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, NR1D2, RORA, RORB and RORG, which form a second feedback loop and which activate and repress ARNTL/BMAL1 transcription, respectively. Has a redundant role with the other PER proteins PER1 and PER2 and is not essential for the circadian rhythms maintenance. In contrast, plays an important role in sleep-wake timing and sleep homeostasis probably through the transcriptional regulation of sleep homeostasis-related genes, without influencing circadian parameters. Can bind heme.

NCBI AND UNIPROT INFORMATION

NCBI GI #	577861064
NCBI GeneID	8863
NCBI Accession #	NP_001276790.1
NCBI GenBank Nucleotide #	NM_001289861.1

UniProt Accession #	P56645; Q5H8X4; Q5H8X5; Q969K6; Q96S77; Q96S78; Q9C0J3; Q9NSP9; Q9UGU8
Molecular Weight	132,660 Da
NCBI Official Full Name	period circadian protein homolog 3 isoform 2
NCBI Official Synonym Full Names	period circadian clock 3
NCBI Official Symbol	PER3
NCBI Official Synonym Symbols	GIG13; FASPS3
NCBI Protein Information	period circadian protein homolog 3
UniProt Protein Name	Period circadian protein homolog 3
UniProt Gene Name	PER3
UniProt Synonym Gene Names	hPER3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/per3-antibody-immunofluorescence-immunohistochemistry-western-blot-elisa/233259>