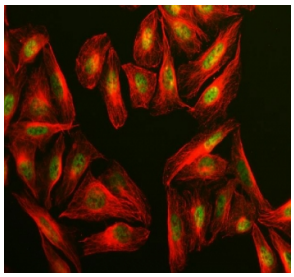
CLOCK Antibody (R31811)

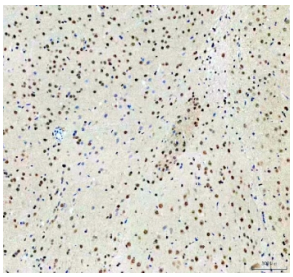
Catalog No.	Formulation	Size
R31811	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

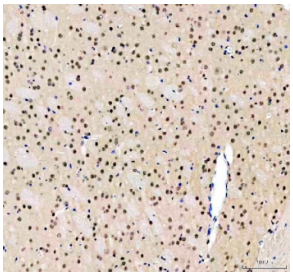
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O15516
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This CLOCK antibody is available for research use only.



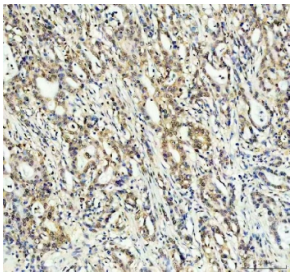
Immunofluorescent staining of FFPE human U-2 OS cells with CLOCK antibody (green) and Alpha Tubulin mAb (red). HIER: steam section in pH6 citrate buffer for 20 min.



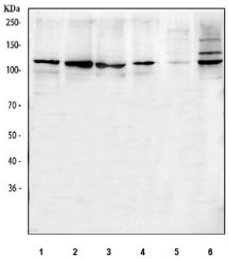
IHC staining of FFPE rat brain tissue with CLOCK antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



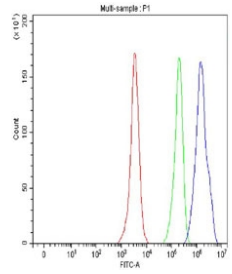
IHC staining of FFPE mouse brain tissue with CLOCK antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human pancreas cancer tissue with CLOCK antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot of 1) human HeLa, 2) human 293T, 3) human PC-3, 4) monkey COS7, 5) rat L6 and 6) mouse NIH 3T3 cell lysate with CLOCK antibody. Predicted molecular weight ~95 kDa but routinely observed at 95-110 kDa.



Flow cytometry testing of fixed and permeabilized human HeLa cells with CLOCK antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CLOCK antibody.

Description

CLOCK (Circadian Locomotor Output Cycles Kaput) is also known as KAT13D. The protein encoded by this gene plays a central role in the regulation of circadian rhythms. This protein encodes a transcription factor of the basic helix-loop-helix (bHLH) family and contains DNA binding histone acetyltransferase activity. And the encoded protein forms a heterodimer with ARNTL (BMAL1) that binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. Polymorphisms in this gene may be associated with behavioral changes in certain populations and with obesity and metabolic syndrome. Alternative splicing results in multiple transcript variants.

Application Notes

Optimal dilution of the CLOCK antibody should be determined by the researcher.

Immunogen

Amino acids QKSIDFLRKHKEITAQSDASEIRQDWKPTFLSNEE of human CLOCK were used as the immunogen for the CLOCK antibody.

Storage

After reconstitution, the CLOCK antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

References (2)