

Recombinant Full Length Human CLOCK Protein, GST-tagged

Cat. No. CLOCK-6888HF Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human full-length CLOCK(1 a.a. - 846 a.a.), fused with GST-tag at N-terminal, was expressed in wheat germ.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	846 amino acids
Description	The protein encoded by this gene plays a central role in the regulation of circadian rhythms. The protein encodes a transcription factor of the basic helix-loop-helix (bHLH) family and contains DNA binding histone acetyltransferase activity. 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.
Molecular Mass	119.5 kDa
AA Sequence	MLFTVSCSKMSSIVDRDDSSIFDGLVEEDDKDKAKRVS RNKSEKKRRDQFNVLIKEL GSMLPGNARKMDKSTVLQ KSIDFLRKHK EIT AQSDASEIRQDWKPTFISNEEFTQLM LEALDGFLLAIMTDGSIYVSESVTSLLEHLPSDLV DQSIFNFIPEGEHSEVYKILSTHL

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LESDSLTPPEYLKSKNQLEFCCHMLRGTIDPKEPSTYEYVKFIGNFKSLNSV SSSAHN
 GFEGTIQRTHRPSYEDRVCFVATVRLATPQFIKEMCTVEEPNEEFTSRHSLEWKFLF
 LDHRAPPIIGYL PFEVLGTSGYDYYHVDDLENLAKCHEHLMQYGGKSKSCYYRFLTK
 GQQWIWLQTHYYITYHQWNSRPEFIVCTHTV VSYAEVRAERRRELGIEESLPETAA
 DKSQDSGSDNRINTVSLKEALERFDHSPTPSASSRSSRKSSHTAVSDPSS TPTKIPT
 DTSTPPRQHLPAHEKMVQRRSSFSSQSINSQSVGSSLTQPVMSQATNLPQPQMSQ
 FQFSAQLGAMQH LKDQLEQRTRMIEANIHRQQEELRKIQEQLQMVHGQGLQMFLQ
 QSNPGLNFGSVQLSSGNSSNIQQLAPINMQGQ VVPTNQIQSGMNTGHIGTTQHMIQ
 QQTLQSTSTQSQQNVLSGHSQQTSLPSQTQSTLTAPLYNTMVISQPAAGSM VQIPS
 SMPQNSTQSAAVTFTQDRQIRFSQGGQLVTKLVTAPVACGAVMVPSTMLMGQVV
 TAYPTFATQQQSQSQT LSVTQQQQQQSSQEQLTSVQQPSQAQLTQPPQQFLQTS
 RLLHGNPSTQLILSAAFPLQQSTFPQSHHQHQSQQ QQQLSRHRTDSLDPDSKVQ
 PQ

Applications ELISA; WB-Re; AP; Array

Notes Best use within three months from the date of receipt of this protein.

Storage Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name CLOCK clock circadian regulator [Homo sapiens (human)]

Official Symbol CLOCK

Synonyms CLOCK; clock homolog (mouse); clock (mouse) homolog; circadian locomoter output cycles protein kaput; bHLHe8; KAT13D; KIAA0334; class E basic helix-loop-helix protein 8; circadian locomoter output cycles kaput protein

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Gene ID	9575
mRNA Refseq	NM_004898
Protein Refseq	NP_004889
MIM	601851
UniProt ID	O15516

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