

Product datasheet for **RC206882**

SHARP1 (BHLHE41) (NM_030762) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHARP1 (BHLHE41) (NM_030762) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHARP1
Synonyms:	BHLHB3; DEC2; FNSS1; hDEC2; SHARP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206882 representing NM_030762
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGACGAAGGAATTCCTCATTTGCAAGAGAGACAGTTACTGGAACATAGAGATTTTATAGGACTGGACT
 ATTCTCTTTGTATATGTGTAACCCAAAAGGAGCATGAAACGAGACGACACCAAGGATACCTACAATT
 ACCGCACAGATTAATAGAAAAGAAAAGAAGAGACCGAATTAATGAATGCATTGCTCAGCTGAAAGATTTA
 CTGCCTGAACATCTGAAATTGACAACTCTGGGACATCTGGAGAAAAGCTGTAGTCTTGAATTAACCTTGA
 AACACTTAAAAGCTTTAACCGCTTAACCGAGCAACAGCATCAGAAGATAATTGCTTTACAGAATGGGGA
 GCGATCTCTGAAATCGCCATTAGTCCGACTTGGATGCGTTCCTCGGGATTTCAAACATGCGCCAAA
 GAAGTCTTGAATACCTCTCCCGTTTGGAGAGCTGGACACCCAGGGAGCCGCGGTGTGCCAGCTGATCA
 ACCACTTGACGCGGTGCCACCCAGTTCTTGCCACCCCGCAGCTGTTGACTCAACAGGTCCCTCTGAG
 CAAAGGCACCGGCGCTCCCTCGGCCGCGGGTCCGCGGCCGCCCTGCCTGGAGCGCGCGGGCAGAAG
 CTGGAGCCCTCGCTACTGCGTGCCCGTCATCCAGCGGACTCAGCCAGCGCCGAGCTCGCCGCCGAGA
 ACGACACGGACACCGACAGCGGTACGGCGGCGAAGCCGAGGCCCGGCCGAGACCGGAGAAAGCAAAGG
 CGCGGGGGCGAGCCGCTCACTCAAGCAGGAGCCTCCCGGGGAGGACTCGCCGGCGCCAAGAGGATG
 AAGCTGGATTCGCGGCGGGCGGAGCGGCGGCCCGGGGGCGCGCGGTGGCGGGCGAGCCGCGC
 TTCTGGGGCCGACCTGCCCGCGGCCGCGTGTGAGACCCGACCGCCCTGCTCAGCTCGTGGT
 GGCGTTCGGCGGAGGCGGAGCGCGCCCTCCCGCAGCCCGCGCGCCGCGCGCCCTTCTGCCTGCC
 TTCTGCTTCTCTCGCTTCTGCAGCTGCCGCTACGTGCAGCCCTTCTGGACAAGAGCGGCTGGAGA
 AGTATCTGTACCGGCGGCGGTGCCGCCCTTCCCGTGTCTATACCCGGCATCCCGCCCGCGCGC
 AGCCGCGGACCGCGCGCCGCGCTGCCCGCGCGCGCGTTCCTCGCTGCTCCTCGGTGTTGTGCG
 CCCCTCCGAGAAAGCGGGCGCGCGCCGCGACCTCCTGCCGACGAGGTGGCGCCCTTGGGGCGC
 CGCACCCCGACCCGACGGCCGACCCACCTGCCCTTCCCGGGCCCGCGAGCCGGGAACCCGGA
 GAGCTCTGCTCAGGAAGATCCCTCGCAGCCAGGAAAGGAAGCTCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206882 representing NM_030762
 Red=Cloning site Green=Tags(s)

MDEGIPHLQERQLLEHRDFIGLDYSSL YMCKPKRSMKRDDTKDITYKLPHRLIEKKRRDRINECIAQLKDL
 LPEHLKLTTLGHLEKAVVLELTLKHLKALTALTEQQHQKIIALQNGERSLKSPIQSDLDAFHSGFQTCAK
 EVLQYLSRFESWTPREPRCVQLINHLHAVATQFLPTPQLLTQQVPLSKGTGAPSAAGSAAAPCLERAGQK
 LEPLAYCVPVIQRTQPSAELAAENDTDTDSYGGGEAEARPDREKKGAGASRVTIKQEPGEDSPAPKRM
 KLDSRGGSGGGPGGAVAAAAALLGPDPAALLRPDAALLSSLVAFGGGGGAPFPQAAAAAPFCLP
 FCFLSPSAAAAAYQPFLDKSGLEKYLPAAPFPLLYPGIPAPAAAAAAAAAAAAAAAAAFPCSSVLS
 PPPEKAGAAAATLLPHEVAPLGAHPQHPHGRTHLPAAGPREPGNPESSAQEDPSQPGEAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_030762

ORF Size: 1446 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_030762.3](#)
RefSeq Size: 3641 bp

RefSeq ORF: 1449 bp

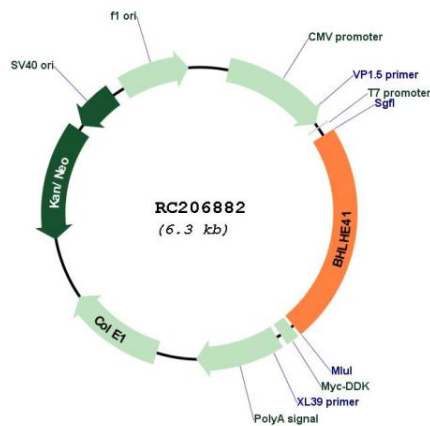
Locus ID: 79365

UniProt ID: [Q9C0J9](#)

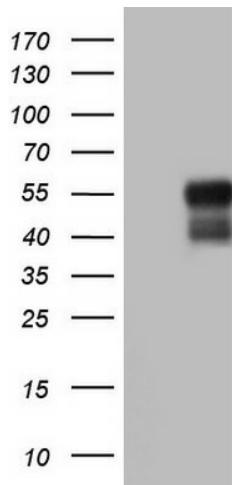
Cytogenetics: 12p12.1
Domains: HLH, ORANGE
Protein Families: Transcription Factors
Protein Pathways: Circadian rhythm - mammal
MW: 50.3 kDa

Gene Summary: This gene encodes a basic helix-loop-helix protein expressed in various tissues. The encoded protein can interact with ARNTL or compete for E-box binding sites in the promoter of PER1 and repress CLOCK/ARNTL's transactivation of PER1. This gene is believed to be involved in the control of circadian rhythm and cell differentiation. Defects in this gene are associated with the short sleep phenotype. [provided by RefSeq, Feb 2014]

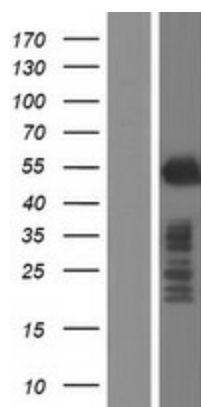
Product images:



Circular map for RC206882



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BHLHE41 (Cat# RC206882, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BHLHE41 (Cat# [TA806394]). Positive lysates [LY410724] (100ug) and [LC410724] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410724]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206882 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).