

Product datasheet for **RG210294**

SHARP2 (BHLHE40) (NM_003670) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHARP2 (BHLHE40) (NM_003670) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SHARP2
Synonyms:	BHLHB2; Clast5; DEC1; HLHB2; SHARP-2; SHARP2; STRA13; Stra14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210294 representing NM_003670 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCGGATCCCCAGCGCGCAACCACCCCGCCTGCCTGCCAAAGCACCGGGACTGGAGCACGGAG
ACCTACCAGGGATGTACCCTGCCACATGTACCAAGTGTACAAGTCAAGACGGGAATAAAGCGGAGCGA
GGACAGCAAGGAGACCTACAAATGCGCGACCGGCTCATCGAGAAAAAGAGACGTGACCGGATTAACGAG
TGCATCGCCAGCTGAAGGATCTCTACCCGAACATCTCAAACCTACAACCTTTGGGTCACTTGGAAAAAG
CAGTGGTTCTTGAACCTTACCTTGAAGCATGTGAAAGCACTAACAAACCTAATTGATCAGCAGCAGCAGAA
AATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGGAGTGTGAGGAGAAATGTCGAAACAGGTCAAGAG
ATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAAGTATCTGGCCAAGCACGAGAACACTC
GGGACCTGAAGTCTTCCGAGCTTGTACCCACCTCCACCGGGTGGTCTCGGAGCTGCTGCAGGGTGGTAC
CTCCAGGAAGCCATCAGACCCAGCTCCCAAAGTATGAGTCAAGGAAAAACCCAGCTCTCCGGCCAAA
GGTTCCGAAGGTCTGGGAAAACTGCGTGCCAGTCCAGCGGACTTTCGCTCACTCGAGTGGGGAGC
AGAGCGGCAGCGACCGGACACAGACAGTGGCTATGGAGGAGAATCGGAGAAGGGCGACTTGCAGTGA
GCAGCCGTGCTTCAAAAGTGACCACGGACGCAGGTTACAGATGGGAGAAAGGATCGGCGCAATTAAGCAA
GAGTCCGAAGAACCCCAAAAAAGAACCGGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCA
GTGACCTGATCAGCTCCCGTTCTGGGCCACACCCACACCCAGCCTCCTTCTGCCTGCCCTTCTACCT
GATCCACCTTACGCGACTGCCTACCTGCCATGCTGGAGAAGTGGTATCCACCTCAGTGCCAGTG
CTATACCCAGGCCTCAACGCCTCTGCCGACCCCTCTAGCTTTCATGAACCCAGACAAGATCTCGGCTC
CCTTGCTCATGCCCGAGACTCCCTTCTCCCTTGCCAGCTCATCCGTCGCTCGACTCTTCTGTCTTGTCT
CCAAGCTCTGAAGCCAATCCCCCTTTAAACTTAGAAACCAAAGAC

ACGGTACGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210294 representing NM_003670
 Red=Cloning site Green=Tags(s)

MERIPSAQPPACLPKAPGLEHGDLPGMPAHMYQVYKSRRGIKRSSEDSKETYKLPHRLIEKRRDRINE
 CIAQLKDLLPEHLKLTTLGHLEKAVVLELTLKHVKALTNLIDQQQKIIALQSLQAGELSGRNVETGQE
 MFCSGFQTCAREVLQYLAKHENTRDLKSSQLVTHLHRVSELLQGGTSRKPSPDPAPKVMDFKEKPPSPAK
 GSEGPKNKCVPIQRTFAHSSGEQSGSDTDTDSGYGGESEKGLRSEQPCFKSDHGRRFTMGERIGAIIKQ
 ESEEPPTKKNRMQLSDDEGHFTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKWCWYPTSVPV
 LYPGLNASAAAALSSFMPNDKISAPLLMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003670

ORF Size: 1236 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_003670.3](#)

RefSeq Size: 2922 bp

RefSeq ORF: 1239 bp

Locus ID: 8553

UniProt ID: [O14503](#)

Cytogenetics: 3p26.1

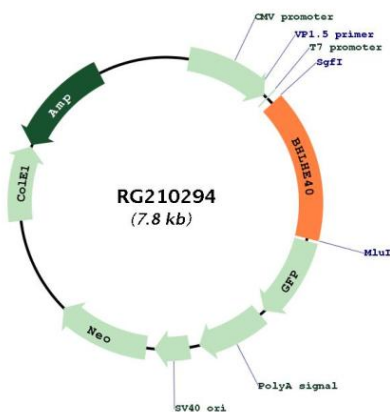
Domains: HLH, ORANGE

Protein Families: Transcription Factors

Protein Pathways: Circadian rhythm - mammal

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. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RG210294