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Product datasheet for RC211709

HES1 (NM_005524) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HES1 (NM_005524) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HES1
Synonyms:	bHLHb39; HES-1; HHL; HRY
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211709 representing NM_005524
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCAGCTGATATAATGGAGAAAAATTCCTCGTCCCCGGTGGCTGCTACCCCAGCCAGTGTCAACACGA
CACCGGATAAACCAAAGACAGCATCTGAGCACAGAAAGTCATCAAAGCCTATTATGGAGAAAAGACGAAG
AGCAAGAATAAATGAAAGTCTGAGCCAGCTGAAAACACTGATTTTGGATGCTCTGAAGAAAGATAGCTCG
CGGCATTCCAAGCTGGAGAAGGCGGACATTCTGGAAATGACAGTGAAGCACCTCCGGAACCTGCAGCGGG
CGCAGATGACGGCTGCGCTGAGCACAGACCCAAGTGTGCTGGGGAAGTACCGAGCCGGCTTCAGCGAGTG
CATGAACGAGGTGACCCGCTTCCTGTCCACGTGCGAGGGCGTTAATACCGAGGTGCGCACTCGGCTGCTC
GGCCACCTGGCCAACTGCATGACCCAGATCAATGCCATGACCTACCCCGGGCAGCCGCACCCCGCCTTGC
AGGCGCCGCCACCGCCCCCACCGGGACCCGGCGGCCCCCAGCACGCGCCGTTCGCGCCGCCGCCGCCACT
CGTGCCCATCCCCGGGGGCGCGGCGCCCCCTCCCGGCGGCGCCCCCTGCAAGCTGGGCAGCCAGGCTGGA
GAGGCGGCTAAGGTGTTTGGAGGCTTCCAGGTGGTACCGGCTCCCGATGGCCAGTTTGCTTTCCTCATTC
CCAACGGGGCCTTCGCGCACAGCGGCCCTGTCATCCCCGTCTACACCAGCAACAGCGGCACCTCCGTGGG
CCCCAACGCAGTGTCACCTTCCAGCGGCCCCTCGCTTACGGCGGACTCCATGTGGAGGCCGTGGCGGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC211709 representing NM_005524
Red=Cloning site Green=Tags(s)

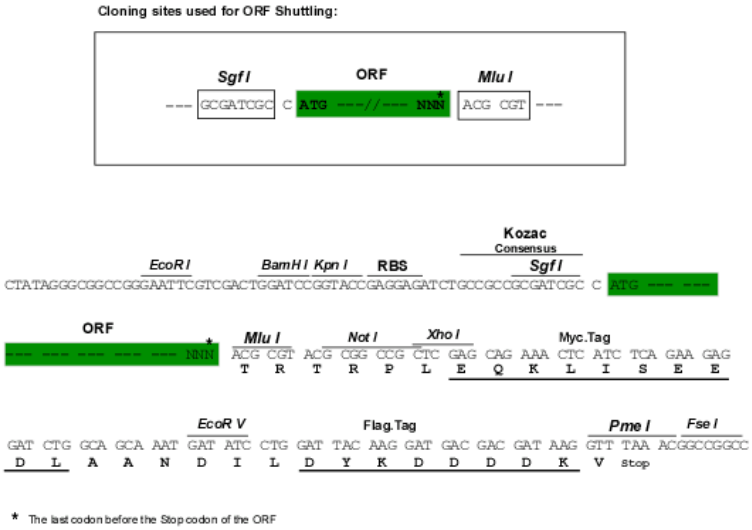
MPADIMEKNSSSPVAATPASVNTTPDKPKTASEHRKSSKPIMEKRRRARINESLSQLKTLILDALKKDSS
RHSKLEKADILEMTVKHLRNLQRAQMTAALSTDPSVLGKYRAGFSECMNEVTRFLSTCEGVNTEVRTRLL
GHLANCMTQINAMTYPGQPHPALQAPPPPPPGPGGPQHAPFAPPPPLVPIPGGAAPPPGGAPCKLGSQAG
EAAKVFGGFQVVPAPDGQFAFLIPNGAFAHSGPVIPVYTSNSGTSVGPNAVSPSSGPSLTADSMWRPWRN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3074_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005524

ORF Size: 840 bp

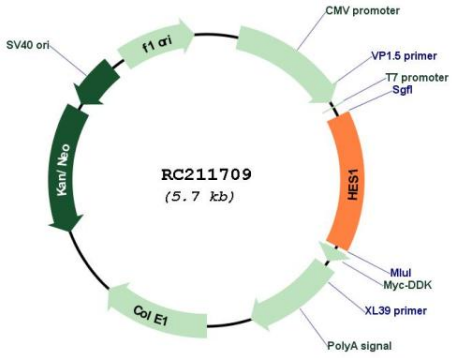
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

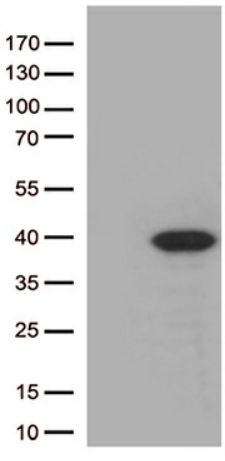
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005524.4
RefSeq Size:	1471 bp
RefSeq ORF:	843 bp
Locus ID:	3280
UniProt ID:	Q14469
Cytogenetics:	3q29
Domains:	HLH, ORANGE
Protein Families:	Adult stem cells, Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - DSL/Notch pathway, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young, Notch signaling pathway
MW:	29.4 kDa
Gene Summary:	This protein belongs to the basic helix-loop-helix family of transcription factors. It is a transcriptional repressor of genes that require a bHLH protein for their transcription. The protein has a particular type of basic domain that contains a helix interrupting protein that binds to the N-box rather than the canonical E-box. [provided by RefSeq, Jul 2008]

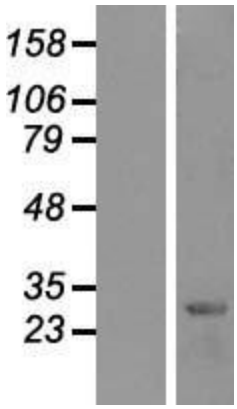
Product images:



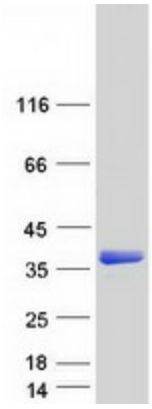
Circular map for RC211709



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HES1 (Cat# RC211709, 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-HES1 (Cat# [TA504001])(1:500).



Western blot validation of overexpression lysate (Cat# [LY417251]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211709 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HES1 protein (Cat# [TP311709]). The protein was produced from HEK293T cells transfected with HES1 cDNA clone (Cat# RC211709) using MegaTran 2.0 (Cat# [TT210002]).