

## Product datasheet for **RG211709**

### HES1 (NM\_005524) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HES1 (NM_005524) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HES1
Synonyms:	bHLHb39; HES-1; HHL; HRY
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211709 representing NM_005524 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGCTGATATAATGGAGAAAAATTCCTCGTCCCCGGTGGCTGCTACCCCAGCCAGTGTCAACACGA  
CACCGGATAAACCAAAGACAGCATCTGAGCACAGAAAGTCATCAAAGCCTATTATGGAGAAAAGACGAAG  
AGCAAGAATAAATGAAAGTCTGAGCCAGCTGAAAACACTGATTTTGGATGCTCTGAAGAAAGATAGCTCG  
CGGCATTCCAAGCTGGAGAAGGCGGACATTCTGGAAATGACAGTGAAGCACCTCCGGAACCTGCAGCGGG  
CGCAGATGACGGCTGCGCTGAGCACAGACCCAAGTGTGCTGGGAAGTACCGAGCCGGCTTCAGCGAGTG  
CATGAACGAGGTGACCCGCTTCCGTCCACGTGCGAGGGCGTTAATACCGAGGTGCGCACTCGGCTGCTC  
GGCCACCTGGCCAACTGCATGACCCAGATCAATGCCATGACCTACCCCGGGCAGCCGCACCCCGCCTTGC  
AGGCGCCGCCACCGCCCCACCGGGACCCGGCGGCCCCAGCACGCGCCGTTTCGCGCCGCCCGCCCACT  
CGTGCCCATCCCCGGGGCGCGGCCGCCCTCCCGCGGGCGCCCCCTGCAAGCTGGGCAGCCAGGCTGGA  
GAGGCGGCTAAGGTGTTTGGAGGCTTCCAGGTGTACCGGCTCCCGATGGCCAGTTTGCTTTCCTCATTC  
CCAACGGGGCTTCGCGCACAGCGGCCCTGTATCCCCGTCTACACCAGCAACAGCGGCACCTCCGTGGG  
CCCCAACGCAGTGCACCTTCCAGCGGCCCTCGCTTACGGCGGACTCCATGTGGAGGCCGTGGCGGAAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG211709 representing NM\_005524  
 Red=Cloning site Green=Tags(s)

MPADIMEKNSSSPVAATPASVNTTPDKPKTASEHRKSSKPIMEKRRRRARINESLSQLKTLILDALKKDSS  
 RHSKLEKADILEMTVKHLRNLQRAQMTAALSTDPVSLGKYRAGFSECMNEVTRFLSTCEGVNTEVTRLL  
 GHLANCMTQINAMTYPGQPHPALQAPPPPPGPGGPQHAPFAPPPPLVPIPGGAAPPPGGAPCKLGSQAG  
 EAAKVFGGFQVVPAPDGQFAFLIPNGAFHSGPVIIPVYTSNSGTSVGNVAVSPSSGPSLTADSMWRPWRN

TRTRPLE - GFP Tag - V

**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.

**RefSeq:** [NM\\_005524.4](#)

**RefSeq Size:** 1471 bp

**RefSeq ORF:** 843 bp

**Locus ID:** 3280

**UniProt ID:** [Q14469](#)

**Cytogenetics:** 3q29

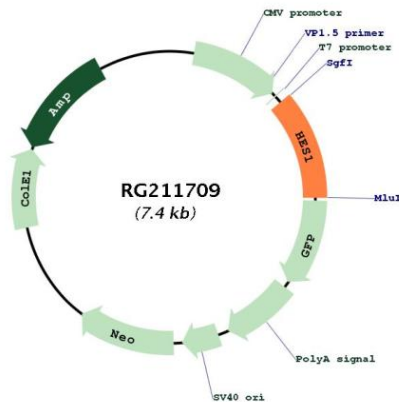
**Domains:** HLH, ORANGE

**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

**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 RG211709