

Product datasheet for **RG209010**

Hairless (HR) (NM_005144) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hairless (HR) (NM_005144) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: HR
Synonyms: ALUNC; AU; HSA277165; HYPT4; MUHH; MUHH1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG209010 representing NM_005144
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGTACGCCAGCTTCTGAAGGGCACCCCAACCTGGGAGAAGACGGCCCCAGAGAACGGCATCG
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CCTGCAAAACTGGCTCAATGCCAAAGTTGTGCCAGGCAGCTGGAGAGGGAGGAGGGCACGCCTGCCACT
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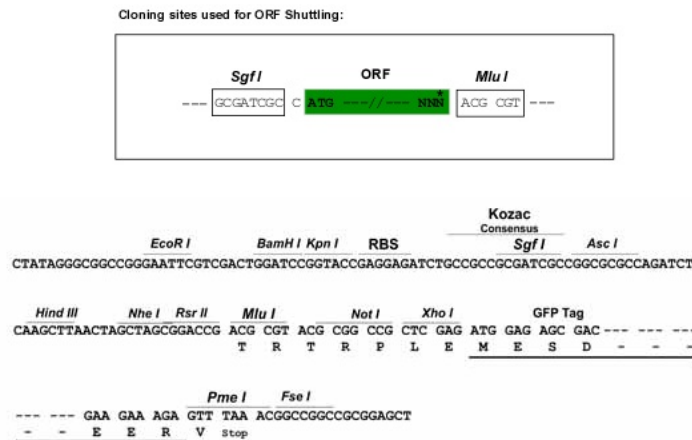
Protein Sequence: >RG209010 representing NM_005144
 Red=Cloning site Green=Tags(s)

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 PPGALLWLQEPQPCRRGFHLFQEHWRRQGPVLVSGIQR TLQGNLWGTEALGALGGQVQAL SPLGPPQPS
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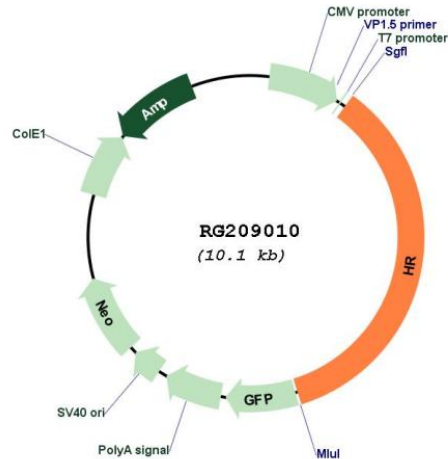
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_005144

ORF Size: 3567 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_005144.5](#)

RefSeq Size: 4981 bp

RefSeq ORF: 3570 bp

Locus ID: 55806

UniProt ID: [O43593](#)

Cytogenetics: 8p21.3

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: This gene encodes a protein that is involved in hair growth. This protein functions as a transcriptional corepressor of multiple nuclear receptors, including thyroid hormone receptor, the retinoic acid receptor-related orphan receptors and the vitamin D receptors, and it interacts with histone deacetylases. The translation of this protein is modulated by a regulatory open reading frame (ORF) that exists upstream of the primary ORF. Mutations in this upstream ORF cause Marie Unna hereditary hypotrichosis (MUHH), an autosomal dominant form of genetic hair loss. Mutations in this gene also cause autosomal recessive congenital alopecia and atrichia with papular lesions, other diseases resulting in hair loss. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2014]