

Product datasheet for RC209010

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:	Myc-DDK
Symbol:	Hairless
Synonyms:	ALUNC; AU; HSA277165; HYPT4; MUHH; MUHH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209010 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGTACGCCAGCTTCTGAAGGGCACCCCAACCTGGGAGAAGACGGCCCCAGAGAACGGCATCG
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GACATGCTCCACTTGTGGAGGGCGAGGGCCCCAGAATGGGAGAGGAAGGTCAACTGGCTGGGCAGCA
AAGAGGGACTGCGCTGGAAGGAGGCCATGCTTACCCATCCGCTGGCATTCTGCGGGCCAGCGTGGCCACC
TCGCTGTGGCCCCCTGATGCCTGAGCATAGTGGTGGCCATCTCAAGAGTGACCCTGTGGCCTTCCGGCCC
TGGCACTGCCCTTCTTCTGGAGACCAAGATCCTGGAGCGAGCTCCCTTCTGGGTGCCACCTGCTTGC
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CCTGCAAACCTGGCTCAATGCCAAAGTTGTGCCAGGCAGCTGGAGAGGGAGGAGGGCACGCCTGCCACT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209010 protein sequence
 Red=Cloning site Green=Tags(s)

MESTPSFLKGTPTWEKTAPENGI VRQEPGSPPRDGLHHGPLCLGEPAPFWRGVLSTPDSWLPFGFPQGP
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 WHCPFLLETKILERAPFWVPTCLPPYLVSGLPPEHPCDWPLTPHPWVYSGGQPKVPSAFSLGSKGFYYKD
 PSIPRLAKEPLAAAEPGLFGLNSGGHLQRAGEAERPSLHQRDGEMGAGRQQNPCPLFLGQPDTVPWTSWP
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 GASGASEPSEEVNKASGPRACPPSHHTKLKKTWLTRHSEQFECPRGCEVEERPVARLRALKRAGSPEVQ
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 TGRAREKAGFQEQAEECTQEAGHAACSLMLTQFVSSQALAE LSTAMHQVWVKFDIRGHCPQADARVWA
 PGDAGQQKESTQKTPPTQPSCNGDTHRTKSIKEETPDSAETPAEDRAGRPLPCPSLCELLASTAVKLC
 LGHRIHMAFAPVTPALPSDDRITNILD SIIAQVVERKIQEKALGPGLRAGPGLRKGLGLPLSPVRPRLP
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 LRPLEPQLWAA YGVSPHRGHLGTKNLCVEVADLV SILVHADTPLPAWHRAQKDFLSGLDGEGLWSPGSQV
 STVWHVFRAQDAQRIRRF LQMVCPAGAGALEPGAGSCYL DAGLRRRLREEWGVSCWTL LQAPGEAVLVP
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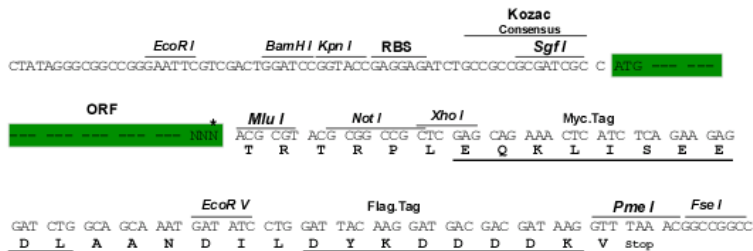
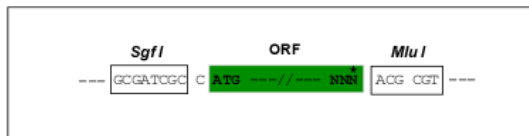
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6835_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



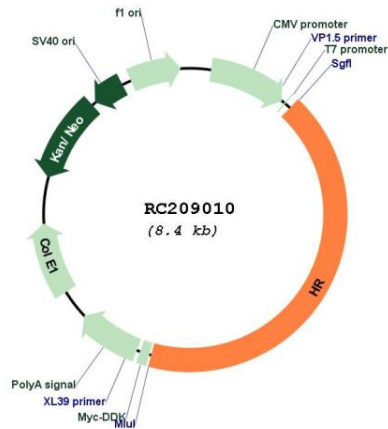
* The last codon before the Stop codon of the ORF

ACCN: NM_005144

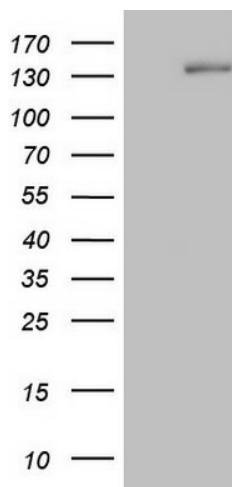
ORF Size: 3567 bp

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:	<ol style="list-style-type: none">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:	5528 bp
RefSeq ORF:	3570 bp
Locus ID:	55806
UniProt ID:	O43593
Cytogenetics:	8p21.3
Protein Families:	Druggable Genome, Transcription Factors
MW:	127.5 kDa
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]

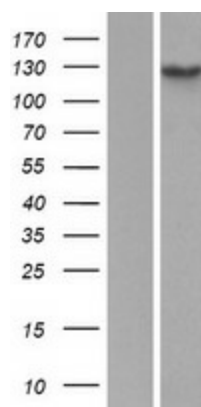
Product images:



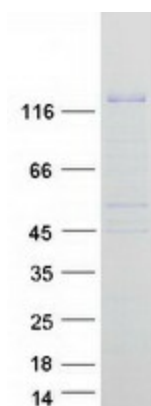
Circular map for RC209010



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HR (Cat# RC209010, 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-HR antibody (Cat# [TA806882]). Positive lysates [LY417487] (100ug) and [LC417487] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417487]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209010 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HR protein (Cat# [TP309010]). The protein was produced from HEK293T cells transfected with HR cDNA clone (Cat# RC209010) using MegaTran 2.0 (Cat# [TT210002]).