

Product datasheet for **RC204014**

LHX4 (NM_033343) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LHX4 (NM_033343) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LHX4
Synonyms:	CPHD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204014 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGATGCAGAGTGCAGCTGTCCCGCGGAAGGGGCTGTCAAGGGGCTCCCGGAGATGCTAGGTGTGCCGA
TGCAACAGATTCCCAGTGCCTGGCTGCAACCAGCACATCCTGGACAAGTTCATCCTGAAGTCTGGA
CAGACTGGCACAGCTCCTGCCTCAAGTGTGCAGACTGCCAGATGCAGCTGGCGGACAGGTGCTTCTCC
AGGGCTGGGAGCGTCTACTGCAAGGAGGACTTCTCAAGCGCTTCGGCACAAAATGCACGGCCTGCCAGC
AGGGTATCCCCCAACCCAGGTGGTCCGCAAGGCCAGGACTTTGTCTACCACCTGCACTGCTTTGCTTG
CATCATCTGCAACCGGCAGCTGGCCACGGGGGACGAATTCACCTCATGGAGGACGGGCGGCTGGTGTGC
AAGGAAGACTACGAGACAGCCAAGCAGAACGATGACTCAGAGGCTGGAGCTAAGCGGCCCCGGACCACCA
TCACAGCCAAGCAGCTGGAGACATTAAGAATGCATACAAGAACTCCCCAAGCCTGCCCGGCACGTGAG
GGAGCAGCTGTCTCAGAGACAGGCCTGGACATGAGGGTCTGACAGGTTGGTTTCAGAACAAGGGCC
AAAGAGAAACGCCTGAAGAAGGATGCAGGGCGGCACCGCTGGGGGAGTTCTATAAGAGCGTCAAGAGGA
GCCGGGCGAGCAGCAAGCAGGAGAAGGAGAGCTCTGCAGAGGACTGTGGGTTAGTGACAGTGAGCTGAG
CTTCCGAGAGGATCAAATCTCTCAGAATTGGCCACACCAATAGGATTTATGGCAACGTGGGGGACGTT
ACAGGCGGACAGTTAATGAATGGGAGCTTCTCCATGGACGGGACAGGACAATCCTATCAGGACTTGAGGG
ATGGGAGCCCCTATGGAATCCCCAGTCTCCATCCTCCATATCGTCCCTGCCATCCACGCTCCTTTGCT
CAATGGGCTGGATTACACGGTGGACAGTAATTTGGGCATCATTGCGCATGCAGGGCAGGGAGTAAGCCAG
ACGCTGAGAGCCATGGCTGGGGGACCCACCTCTGACATCTCCACAGGAAGCAGTGTAGGCTATCCCGACT
TTCCAAGTAGCCAGGCTCTGGCTCGATGAAATGGATCATCCTCCTTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204014 protein sequence
Red=Cloning site Green=Tags(s)

MMQSATVPAEGAVKGLPEMLGVPMQQIPQCAGCNQHILDKFILKVLDRHWHSSCLKADCQMQQLADRCFS
 RAGSVYCKEDFFKRFGTKCTACQGGIPPTQVVRKAQDFVYHLHCFACIICNRQLATGDEFYLMEDGRLVC
 KEDYETAKQNDSEAGAKRPRTTITAKQLETLKNAYKNSPKPARHVREQLSSETGLDMRVVQVWFQNRRA
 KEKRLKKDAGRHRWQFYKSVKRSRGSSKQEKESAEEDCGVSDSELSFREDQILSELGHTNRIYGNVGDV
 TGGQLMNGSFMSDGTGQSYQDLRDGSPYGI PQSPSSISLPSHAPLLNGLDYTVDSNLGIIAHAGQGVSVQ
 TLRAMAGPSTSDISTGSSVGYPDFPTSPGSLDEMHPFF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6058_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_033343

ORF Size: 1170 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_033343.4](#)

RefSeq Size: 1909 bp

RefSeq ORF: 1173 bp

Locus ID: 89884

UniProt ID: [Q969G2](#)

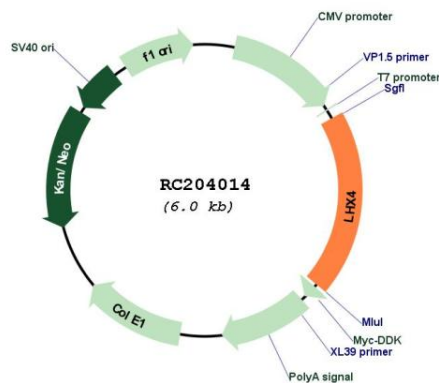
Cytogenetics: 1q25.2

Protein Families: Druggable Genome, Transcription Factors

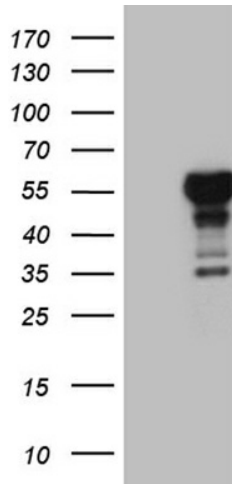
MW: 43.1 kDa

Gene Summary: This gene encodes a member of a large protein family which contains the LIM domain, a unique cysteine-rich zinc-binding domain. The encoded protein is a transcription factor involved in the control of differentiation and development of the pituitary gland. Mutations in this gene cause combined pituitary hormone deficiency 4. [provided by RefSeq, Dec 2010]

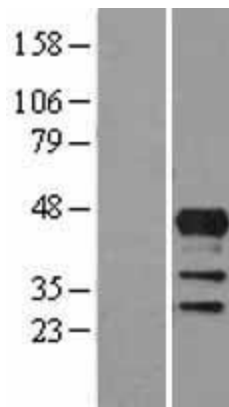
Product images:



Circular map for RC204014



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LHX4 (Cat# RC204014, 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-LHX4 (Cat# [TA809562])(1:2000). Positive lysates [LY403244] (100ug) and [LC403244] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403244]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204014 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).