

## Product datasheet for **RC220804**

### CHI3L2 (NM\_004000) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CHI3L2 (NM_004000) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CHI3L2
Synonyms:	CHIL2; YKL-39; YKL39
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220804 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGAGCAACCACCATGGACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGCTGCTTCTCCAGGGAG  
GATCTGCCTACAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGGCAGGAACCAGGAAAATTCAC  
CCCTGAGAATATTGACCCCTTCTATGCTCTCATCTCATCTATTTCGCCAGCATCGAAAACAACAAG  
GTTATCATCAAGGACAAGAGTGAAGTATGCTCTACCAGACCATCAACAGTCTCAAACCAAGAATCCCA  
AACTGAAAATTCCTTGCCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCACCCCTATGGTGGATTC  
TTCTACATCAGCCTTGAATTCATTAACCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTG  
GATGTAAGCTGGATCTACCCAGATCAGAAAGAAAACACTATTTCACTGTGCTGATTCATGAGTTAGCAG  
AAGCCTTTCAGAAGGACTTCACAAAATCCACCAAGGAAAGGCTTCTCTTGACTGTGGCGTATCTGCAGG  
GAGGCAATGATTGATAACAGCTATCAAGTTGAGAAACTGGCAAAAGATCTGGATTTTCATCAACCTCCTG  
TCCTTTGACTTCCATGGGTCTTGGGAAAAGCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGT  
GGCAGGACAGAGGGCCAAGCTCTACTACAATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAAT  
GCCATCAGAGAAGGTGGTCATGGGCATCCCCACATATGGGCACCTCTTCACTGGCCTCTGCAGAAACC  
ACCGTGGGGCCCTGCCTCTGGCCCTGGAGCTGCTGGACCCATCACAGAGTCTTCAGGCTTCTGGCCT  
ATTATGAGATCTGCCAGTTCCTGAAAGGAGCCAAGATCACGCGGCTCCAGGATCAGCAGGTTCCCTACGC  
AGTCAAGGGGAACCAGTGGGTGGCTATGATGATGTGAAGAGTATGGAGACCAAGTTTCAGTTCTTAAAG  
AATTTAAACCTGGGAGGACCATGATCTGGTCTATTGACATGGATGACTTCACTGGCAAATCCTGCAACC  
AGGGCCCTTACCCTCTTGTCCAAGCAGTCAAGAGAAGCCTTGGCTCCCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC220804 protein sequence  
Red=Cloning site Green=Tags(s)

MGATTMDQKSLWAGVVVLLLLQGG SAYKLVCYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNK  
 VIKDKSEVMLYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSTRLEFINSIILFLRNHNF DGL  
 DVSWIYPDQKENTHFTVLIHELAEAFQKDFTKSTERLLLVGVSAGRQ MIDNSYQVEKLAKDLDFINLL  
 SFDFHGSWEKPLITGHNSPLSKGWQDRGPSSYYNVEYAVGYWIHKMPSEKVV MGIPTYGHSFTLASAET  
 TVGAPASGPGAAGPITESGFLAYYEICQFLKGAKITRLQDQQVPYAVKGNQWVGYDDVKSMETKVQFLK  
 NLNLGGAMIWSIDMDDFTGKSCNQGPYPLVQAVKRS LGSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6302\\_d06.zip](https://cdn.origene.com/chromatograms/mk6302_d06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004000

**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\\_004000.2](#), [NP\\_003991.2](#)

**RefSeq Size:** 1486 bp

**RefSeq ORF:** 1173 bp

**Locus ID:** 1117

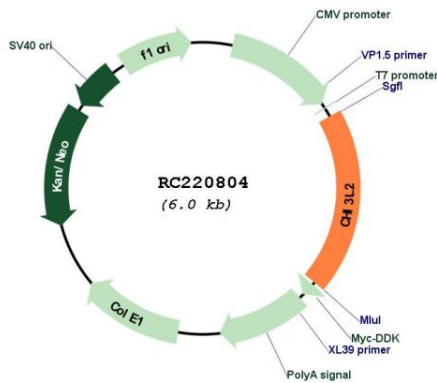
**UniProt ID:** [Q15782](#)

**Cytogenetics:** 1p13.2

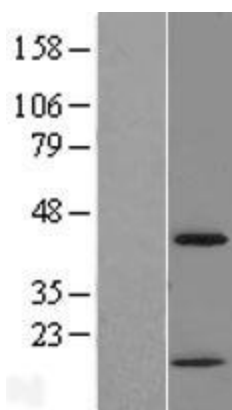
**MW:** 43.5 kDa

**Gene Summary:** The protein encoded by this gene is similar to bacterial chitinases but lacks chitinase activity. The encoded protein is secreted and is involved in cartilage biogenesis. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

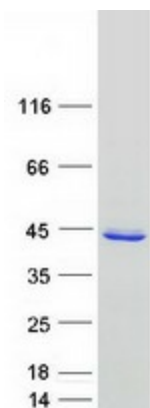
**Product images:**



Circular map for RC220804



Western blot validation of overexpression lysate (Cat# [LY418266]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220804 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CHI3L2 protein (Cat# [TP320804]). The protein was produced from HEK293T cells transfected with CHI3L2 cDNA clone (Cat# RC220804) using MegaTran 2.0 (Cat# [TT210002]).