

Product datasheet for **RC205242**

Dynein intermediate chain 1 (DNAI1) (NM_012144) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dynein intermediate chain 1 (DNAI1) (NM_012144) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dynein intermediate chain 1
Synonyms:	CILD1; DIC1; ICS1; PCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC205242 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATTCTGCTTCTGCGAAGTCTCCCATAAACAGCCTCATAAGCAGAGCATCAGCATAGGCAGAGGAA
CCAGGAAGAGAGATGAAGATTCAGGGACTGAAGTGGGAGAAGGCACAGATGAATGGGCCAATCCAAAGC
CACAGTTAGACCCCTGACCAGCTGGAGTTGACCGATGCGGAGTTAAAGGAGGAGTTCACCTCGGATTTTG
ACAGCCAACAACCCACACGCACCCAGAACATTGTGAGGTACAGCTTCAAAGAAGGCACATATAAGCCTA
TTGGCTTTGTGAACCAACTGGCAGTTCACTACCCAGGTTGGGAACCTGATCCCAAAGACTCAGATGA
AGGACGGCGCAGCATTACCGCATGAATTAGTGGCAGGTTCTCAGGAGTCTGTCAAGGTGATTTTCAGAA
ACAGGAAACCTCGAAGAAGACGAAGAGCCCAAGGAGTTAGAACTGAGCCTGGGAGTCAAACAGATGTGC
CTGCAGCTGGGGCAGCTGAAAAAGTGACTGAAGAAGAATTGATGACTCCTAAGCAGCCCAAGGAGAGAAA
GCTCACTAACAGTTCACCTTCAGTGAGAGGGCCTCACAGACCTGCAACAACCTGTCCGGGATCGAGAA
TGCCAGACGGAGCTCCTCCAGGACAACTTTTCAGCCACAGCCAATCAGTGGGAGATCTATGATGCCCT
ATGTAGAGGAACTTGAGAAGCAGGAAAAGACCAAGAGAAGGAGAAGGCAAGACCCAGTGGCTAAAAA
ATCAGGGAAGATGGCCATGAGGAAGCTGACATCTATGGAGTCTCAGACTGATGATCTCATCAAATTTGTC
CAAGCTGCTAAGATCATGGAGCGGATGGTCAACCAAGATACATATGATGACATTGCTCAAGATTTAAGT
ACTATGACGATGCTGCTGATGAATACCGGGACCAGGTGGGTACCTGCTGCCGCTCTGGAAGTCCAAAA
TGACAAAGCCAAGCGCTGTCCGTCAGTCCCTCTGCTGGAATCCAAAGTACAGGGATCTGTTTGCAGTG
GGATATGGCTCTTATGACTTCATGAAGCAGAGCCGGGGCATGCTGCTGCTCTACAGCCTGAAGAACCCCA
GCTTCCCTGAGTACATGTTTCAGCAGCAACAGCGGCGTCATGTGTCTCGACATCCAGTGGACCCCTTA
CCTGGTGGCAGTAGGCCACTATGACGGCAACGTGGCCATTTACAACCTCAAGAAGCCCACTCCAGGCC
TCCTTCTGCAGCTCAGCCAAGTCTGGCAAGCACTCAGACCCTGTGTGGCAGGTAAGTGGCAGAAGGATG
ACATGGACCAAAACCTTAACCTTCTCTCTGTGTCATCTGACGGCAGGATTGTGTCTTGGACTCTCGTGAA
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TTGCAGCTGCACCAAGTGGTGTGGCACTGCCTTTGACTTCCACAAAGAGATTGACTACATGTTCTTAG
TGGGCACAGAGGAGGAAAAATCTACAAGTGTCTAAATCCTACTCCAGCCAATTCCTCGACACCTATGA
CGCCACAACATGTCAGTGGACTGTGTCCTGGAACCCATACCACCAAGGTCTTCATGTCCTGCAGC
TCCGACTGGACAGTGAAGATCTGGGACCACCCATCAAGACCCCGATGTTTCATCTATGACCTGAACTCAG
CCGTGGGTGATGTGGCCTGGGCGCCATACTCTTCTACTGTGTTCCGAGCAGTACCACAGATGGGAAGGC
CCACATATTTGACTTAGCCATCAACAAGTATGAGGCCATCTGCAACCAGCCTGTGGCGGCCAAAAAGAAC
AGGCTCACCCACGTGCAGTTCAATCTCATCCACCCATCATATTGTGGGCGATGACCGTGGGCACATCA
TCAGCCTCAAGCTCTACCCAAATTTGCGCAAGATGCCAAAGGAAAAGAAGGGGCAGGAGGTGCAGAAGGG
TCCAGCTGTGGAGATTGCGAAACTGGACAACTGCTGAACCTGGTGAAGGAAAGTAAAAATCAAGACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205242 protein sequence
Red=Cloning site Green=Tags(s)

MIPASAKSPHKQPHKQSIISIGRGTRKRDEDSGTEVGEGETDEWAQSKATVRPPDQLELTD AELKEEFTRIL
 TANNPHAPQNIIVRYSFKEGTYKPIGFVNQLAVHYTQVGNLIPKDSDEGRRQHYRDELVAGSQESVKVISE
 TGNLEEDEEPKELETEPGSQTDVPAAGAAEKVTEELMTPKQPKERKLTNQFNFSERASQTCNNPVRDRE
 CQTEPPPRTNFSATANQWEIYDAYVEELEKQEKTEKEKAKTPVAKKSGKMAMRKLTSMESQTDLLIKLS
 QAAKIMERMVNQNTYDDIAQDFKYDDAADEYRDQVGTLLPLWKFQNDKAKRLSVTALCWNPKYRDLFAV
 GYGSYDFMKQSRGMLLLYSLKNPSFPEYMFSSNSGVMCLDIHVDHPYLVAVGHYDGNVAIYNLKKPHSQP
 SFCSSAKSGKHSDPVWQVKWQKDDMDQNLNFFSVSSDGRIVSWTLVKRKLVIDVIKLVKVEGSTTEVPEG
 LQLHQVCGTAFDFHKEIDYMFVVGTEEGKIYKCSKSYSSQFLDYDAHNMSVDTVSWNPYHTKVFMSCS
 SDWTVKIWDHTIKTPMFIYDLNSAVGDVAWAPYSSTVFAAVTTDGAHIFDLAINKYEAICNQPVAAKKN
 RLTHVQFNLIHP I IIVGDDRGH I ISLKLSPNLKMPKEKKQEVQKGP AVEIAKLDKLLNLVREVIKT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6039_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012144

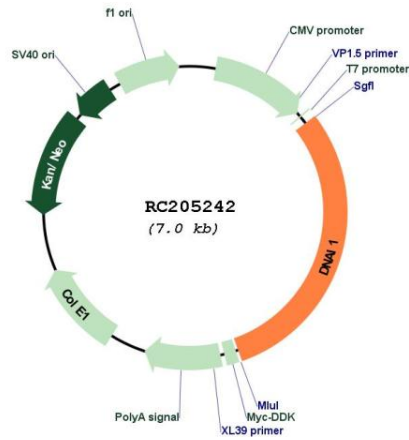
ORF Size: 2097 bp

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](#)

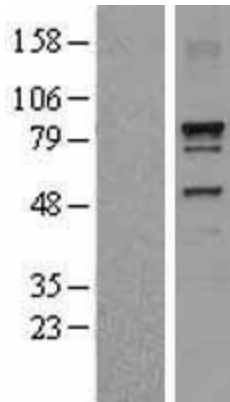
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_012144.4
RefSeq Size:	2593 bp
RefSeq ORF:	2100 bp
Locus ID:	27019
UniProt ID:	Q9UI46
Cytogenetics:	9p13.3
Domains:	WD40
Protein Families:	Druggable Genome
Protein Pathways:	Huntington's disease
MW:	79.3 kDa
Gene Summary:	This gene encodes a member of the dynein intermediate chain family. The encoded protein is part of the dynein complex in respiratory cilia. The inner- and outer-arm dyneins, which bridge between the doublet microtubules in axonemes, are the force-generating proteins responsible for the sliding movement in axonemes. The intermediate and light chains, thought to form the base of the dynein arm, help mediate attachment and may also participate in regulating dynein activity. Mutations in this gene result in abnormal ciliary ultrastructure and function associated with primary ciliary dyskinesia and Kartagener syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

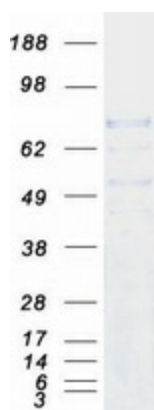
Product images:



Circular map for RC205242



Western blot validation of overexpression lysate (Cat# [LY402158]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205242 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DNAI1 protein (Cat# [TP305242]). The protein was produced from HEK293T cells transfected with DNAI1 cDNA clone (Cat# RC205242) using MegaTran 2.0 (Cat# [TT210002]).