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Product datasheet for RC228228

IYD (NM_001164694) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IYD (NM_001164694) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IYD
Synonyms:	C6orf71; DEHAL1; IYD-1; TDH4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

```
>RC228228 representing NM_001164694
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTATTTCCTGACTCCCATCTTGGTAGCCATTCTCTGCATTTTGGTTGTGTGGATCTTTAAAAATGCCG
ACAGAAGCATGGAGAAAAAGAAGGGGGAGCCTAGAACCAGGGCCGAAGCTCGCCCCTGGGTGGATGAAGA
CTTAAAAGACAGCAGTGACCTGCACCAAGCAGAAGAAGATGCTGATGAATGGCAAGAATCAGAAGAAAAT
GTTGAACACATCCCCTTCTCTCATAACCACTATCCTGAGAAGGAAATGGTTAAGAGGTCTCAGGAATTTT
ATGAACTTCTCAATAAGAGACGGTCAGTCAGGTTCATAAGTAATGAGCAAGTCCCAATGGAAGTCATTGA
TAATGTCATCAGAACGGCAGGAACAGCCCCGAGTGGGGCTCACACAGAGCCCTGGACCTTCGTGGTTGTG
AAGGACCCAGACGTGAAGCACAAGATTCGAAAGATCATTGAGGAGGAAGAGGAGATCAACTACATGAAAA
GGATGGGACATCGCTGGGTCACAGACCTCAAGAAACTGAGAACCAACTGGATTAAAGAGTACTTGGATAC
TGCCCCTATTTTGATTCTCATTTTCAAACAAGTACATGGTTTCGCCGCAAATGGCAAGAAAAAAGTCCAC
TACTACAATGAGATCAGTGTTTCCATCGCTTGTGGCATCCTGCTAGCTGCCCTGCAGGTAAATAATGGAA
TCACCATGCGGCATCAGACTGCGAGGCACCGCCACCTGATTGAGGGTCCTGGAAGAAGCAGCGAAGCCTG
CAGCAAGCTCAGCTCACAAGGCTGCCCAGAATGCAGGTCTGGTGACTGTCACTACCACTCCTCTCAACTG
TGGCCCTCGACTGAGGGTGCTCCTGGGCCGCCCCGCACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

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>RC228228 representing NM_001164694
Red=Cloning site Green=Tags(s)

MYFLTPILVAILCILVVWIFKNADRSMEKKKGEPRTRAEARPWVDEDLKDSSDLHQAEEDADEWQESEEN
VEHIPFSHNHYPEKEMVKRSQEFYELLNKRRSVRFISNEQVPMEVIDNVIRTAGTAPSGAHTEPWTFVVV
KDPDVKHKIRKIIEEEEEINYMKRMGHRWVTDLKKLRTNWIKEYLDTAPILILIFKQVHGFAANGKKKVH
YYNEISVSIACGILLAALQVNNGITMRHQTARHRHLIEGPGRSSEACSKLSSQGCPECRSGDCHYHSSQL
WPSTEGAPGPPRT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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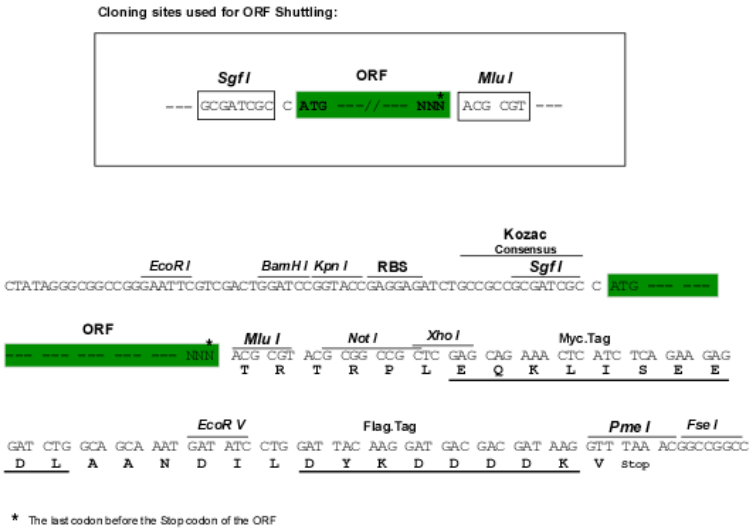
Chromatograms: https://cdn.origene.com/chromatograms/mk8007_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001164694

ORF Size: 879 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).

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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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_001164694.2

RefSeq ORF: 882 bp

Locus ID: 389434

UniProt ID: Q6PHW0

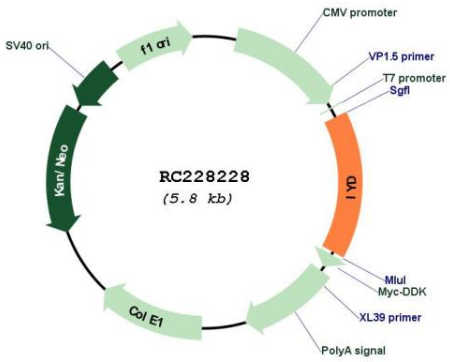
Cytogenetics: 6q25.1

Protein Families: Transmembrane

MW: 33.6 kDa

Gene Summary: This gene encodes an enzyme that catalyzes the oxidative NADPH-dependent deiodination of mono- and diiodotyrosine, which are the halogenated byproducts of thyroid hormone production. The N-terminus of the protein functions as a membrane anchor. Mutations in this gene cause congenital hypothyroidism due to dyshormonogenesis type 4, which is also referred to as deiodinase deficiency, or iodotyrosine dehalogenase deficiency, or thyroid hormonogenesis type 4. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2009]

Product images:



Circular map for RC228228

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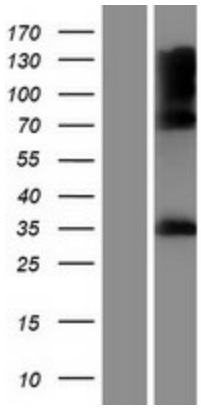

Western blot validation of overexpression lysate (Cat# [LY431256]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228228 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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