

## 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)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTATTTCTGACTCCCATCTTGGTAGCCATTCTCTGCATTTTGGTTGTGTGGATCTTTAAAAATGCCG  
ACAGAAGCATGGAGAAAAAGAAGGGGGAGCCTAGAACCAGGGCCGAAGCTCGCCCTGGGTGGATGAAGA  
CTTAAAAGACAGCAGTGACCTGCACCAAGCAGAAGAAGATGCTGATGAATGGCAAGAATCAGAAGAAAAT  
GTTGAACACATCCCCTTCTCATAACCACTATCCTGAGAAGGAAATGGTTAAGAGGTCTCAGGAATTTT  
ATGAACTTCTCAATAAGAGACGGTCAGTCAGGTTTCATAAGTAATGAGCAAGTCCCAATGGAAGTCATTGA  
TAATGTCATCAGAACGGCAGGAACAGCCCCGAGTGGGGCTCACACAGAGCCCTGGACCTTCGTGGTTGTG  
AAGGACCCAGACGTGAAGCACAAGATTCGAAAGATCATTGAGGAGGAAGAGGAGATCAACTACATGAAAA  
GGATGGGACATCGCTGGGTACAGACCTCAAGAACTGAGAACCAACTGGATTAAGAGTACTTGGATAC  
TGCCCCATTTTGTATTCTCATTTTCAAACAAGTACATGGTTTCGCCGCAATGGCAAGAAAAAAGTCCAC  
TACTACAATGAGATCAGTGTTCATCGCTTGTGGCATCTGCTAGTGCCCTGCAGGTAATAATGGAA  
TCACCATGCGGCATCAGACTGCGAGGCACCGCCACCTGATTGAGGGTCTGGAAGAAGCAGCGAAGCCTG  
CAGCAAGCTCAGCTCACAAAGCTGCCAGAATGCAGGTCTGGTACTGTCACTACCACTCCTCTCAACTG  
TGGCCCTCGACTGAGGGTCTCTGGCCGCCCCGCACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC228228 representing NM\_001164694  
Red=Cloning site Green=Tags(s)

MYFLTPILVAILCILVWIFKNADRSMEKKKGEPRTRAEARPWVDEDLKDSSDLHQAEEDAWEQESEEN  
 VEHIPFSHNHYPEKEMVKRSQEFYELLNKRRSVRFISNEQVPMVIDNVIRTAGTAPSGAHTPEWTFVVV  
 KDPDVKHKIRKIIIEEEEEINYMKRMGHRWYTDLKKLRTNWIKEYLDTAPILILIFKQVHGFAANGKKKVH  
 YYNEISVSIACGILLALQVNNGITMRHQATARHRLIEGPGRSSEACSKLSSQGCPECRSGDCHYHSSQL  
 WPSTEGAPGPPRT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8007\\_a12.zip](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).

**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\\_001164694.2](#)

**RefSeq ORF:** 882 bp

**Locus ID:** 389434

**UniProt ID:** [Q6PHW0](#)

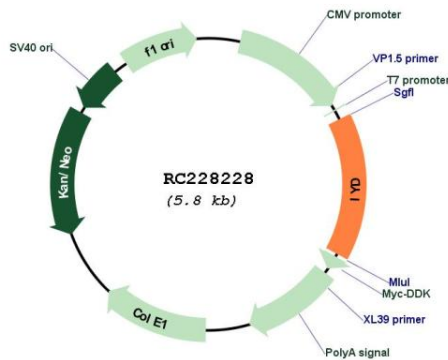
**Cytogenetics:** 6q25.1

**Protein Families:** Transmembrane

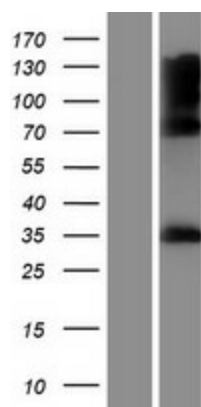
**MW:** 33.6 kDa

**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 dysmorphogenesis type 4, which is also referred to as deiodinase deficiency, or iodotyrosine dehalogenase deficiency, or thyroid morphogenesis type 4. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2009]

### Product images:



Circular map for RC228228



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