

## Product datasheet for **RC207534**

### TGDS (NM\_014305) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TGDS (NM_014305) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGDS
Synonyms:	CATMANS; SDR2E1; TDPGD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207534 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGCGCGGTGTTGGGAGGAACCGTGGGTCTTCCCGCGGCTTTGCGAAGCGGGTCTGGTGACCG  
GCGGTGCTGGTTTCATTGCATCACATATGATTGTCTCTTAGTGGAAAGATTATCCAACTATATGATCAT  
AAATCTAGACAAGCTGGATTACTGTGCAAGCTTGAAGAATCTTGAACCATTTCTAACAAACAGAACTAC  
AAATTTATACAGGGTGACATATGTGATTCTCACTTGTGAACTGCTTTTGAACAGAGAAAATAGATA  
TAGTACTACATTTGCCGCACAAACACATGTAGATCTTTCATTTCGTACGTGCCTTTGAGTTACCTATGT  
TAATGTTTATGGCACTCACGTTTTGGTAAGTGTGCTCATGAAGCCAGAGTGGAGAAGTTTATTTATGTC  
AGCACAGATGAAGTATATGGTGGCAGTCTTGATAAGGAATTTGATGAATCTTACCCAAACAACCTACAA  
ATCCTTATGCATCATCTAAAGCAGCTGTGAATGTTTTGTACAGTCTTACTGGGAACAATAAAGTTTCC  
AGTTGTCATCACAAAGAAGCAGTAATGTTTATGGACCACATCAATATCCAGAAAAGTTTATCCAAAATTT  
ATATCTTTGCTACAGCACAACAGGAAATGTTGCATTTCATGGGTGAGGGCTTCAAACAAGAAACTTCTTT  
ATGCTACTGATGTTGTAGAAGCATTCTCACTGTCTCAAAAAAGGAAACCAGGTGAAATTTATAACAT  
CGGAACCAATTTTGAATGTCAGTTGTCCAGCTTGCCAAAGAATAACAACATGACATGAGATACCCAA  
TCAGAGCTGAAATGAAAATTTGGTTGATTATGTTAATGATAGCCACCAATGACATGAGATACCCAA  
TGAAGTCAGAAAAATACATGGCTTAGGATGGAGACCTAAAGTGCCTTGAAAGAAGGAATAAAGAAAAAC  
AATTGAATGTTACAGAGAGAATTTTCAACTGGAAGAATGTGGAAAAGGCATTAGAACCCTTTCCGGTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC207534 protein sequence  
Red=Cloning site Green=Tags(s)

MSAACWEEPWGLPGGFAKRVLVTGGAGFIASHMIVSLVEDYPNYMIINLDKLDYCASLKNLETISNKQNY  
 KFIQGDICDSHFVKLLFETEKIDIVLHFAAQTHVDLSFVRAFEFTYVNVYGTHLVSAHAHEARVEKFIYV  
 STDEVYGGSLDKFEDESSPKQPTNPYASSKAAAECFVQSYWEQYKFPVVI TRSSNVYGP HQYPEKVIPKF  
 ISLLQHNRKCCIHGSLQTRNFLYATDVVEAFLTVLKKGKPGEIYNI GTNFEMSVVQLAKELIQLIKETN  
 SESEMENWVDYVND RPTNDMRYPMKSEKIHGLGWRPKVPWKEGIKKTIEWYRENFHNWKNVEKALEPFPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6335\\_d05.zip](https://cdn.origene.com/chromatograms/mk6335_d05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_014305

**ORF Size:** 1050 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\\_014305.4](#)

**RefSeq Size:** 1952 bp

**RefSeq ORF:** 1053 bp

**Locus ID:** 23483

**UniProt ID:** [O95455](#)

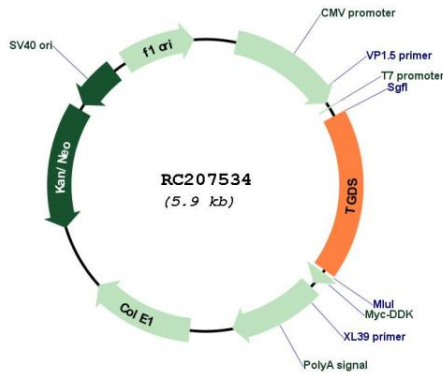
**Cytogenetics:** 13q32.1

**Domains:** Epimerase

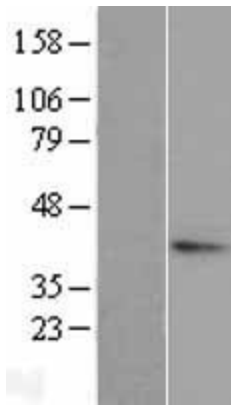
**MW:** 40.2 kDa

**Gene Summary:** The protein encoded by this gene is a member of the short-chain dehydrogenases/reductases (SDR) superfamily, and is thought to contain a nicotinamide adenine dinucleotide (NAD) binding domain. This large SDR family of enzymes is involved in the metabolism of a variety of compounds, including prostaglandins, retinoids, lipids, steroid hormones, and xenobiotics. Mutations in this gene have been associated with Catel-Manzke syndrome, which is characterized by Pierre Robin sequence, and radial deviation of the index finger due to the presence of an accessory bone between the index finger and its proximal phalanx. Pierre Robin sequence is defined by an undersized jaw, backwards displacement of the tongue base that causes an obstruction of the airways, and can also be associated with a cleft palate. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2015]

Product images:



Circular map for RC207534



Western blot validation of overexpression lysate (Cat# [LY415374]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207534 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).