OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC204049

Transaldolase 1 (TALDO1) (NM_006755) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Transaldolase 1 (TALDO1) (NM_006755) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Transaldolase 1
Synonyms:	TAL; TAL-H; TALDOR; TALH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204049 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGAGCTCACCCGTGAAGCGTCAGAGGATGGAGTCCGCGCTGGACCAGCTCAAGCAGTTCACCACCG
TGGTGGCCGACACGGGCGACTTCCACGCCATCGACGAGTACAAGCCCCAGGATGCTACCACCAACCCGTC
CCTGATCCTGGCCGCAGCACAGATGCCCGCTTACCAGGAGCTGGTGGAGGAGGCGATTGCCTATGGCCGG
AAGCTGGGCGGGTCACAAGAGGACCAGATTAAAAATGCTATTGATAAACTTTTTGTGTTGTTTGGAGCAG
AAATACTAAAGAAGATTCCGGGCCGAGTATCCACAGAAGTAGACGCAAGGCTCTCCTTTGATAAAGATGC
GATGGTGGCCAGAGCCAGGCGGCTCATCGAGCTCTACAAGGAAGCTGGGATCAGCAAGGACCGAATTCTT
ATAAAGCTGTCATCAACCTGGGAAGGAATTCAGGCTGGAAAGGAGCTCGAGGAGCAGCACGGCATCCACT
GCAACATGACGTTACTCTTCTCCTTCGCCCAGGCTGTGGCCTGTGCCGAGGCGGGTGTGACCCTCATCTC
CCCATTTGTTGGGCGCATCCTTGATTGGCATGTGGCAAACACCGACAAGAAATCCTATGAGCCCCTGGAA
GACCCTGGGGTAAAGAGTGTCACTAAAATCTACAACTACTACAAGAAGTTTAGCTACAAAACCATTGTCA
TGGGCGCCTCCTTCCGCAACACGGGCGAGATCAAAGCACTGGCCGGCTGTGACTTCCTCACCATCTCACC
CAAGCTCCTGGGAGAGCTGCTGCAGGACAACGCCAAGCTGGTGCCTGTGCTCTCAGCCAAGGCGGCCCAA
GCCAGTGACCTGGAAAAAATCCACCTGGATGAGAAGTCTTTCCGTTGGTTGCACAACGAGGACCAGATGG
CTGTGGAGAAGCTCTCTGACGGGATCCGCAAGTTTGCCGCTGATGCAGTGAAGCTGGAGCGGATGCTGAC
AGAACGAATGTTCAATGCAGAGAATGGAAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC204049 protein sequence
Red=Cloning site Green=Tags(s)

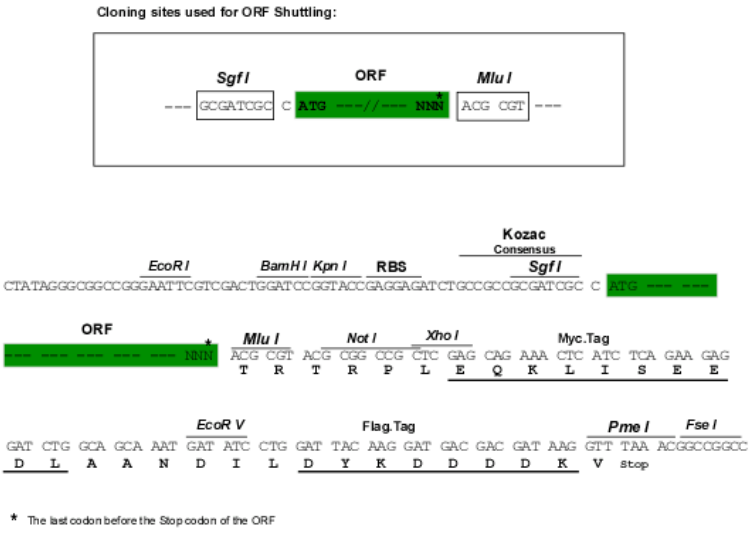
MSSSPVKRQRMESALDQLKQFTTVVADTGDFHAIDEYKPQDATTNPSLILAAAQMPAYQELVEEAIAYGR
KLGGSQEDQIKNAIDKLFVLFGAEILKKIPGRVSTEVDARLSFDKDAMVARARRLIELYKEAGISKDRIL
IKLSSTWEGIQAGKELEEQHGIHCNMTLLFSFAQAVACAEAGVTLISPFVGRILDWHVANTDKKSYEPLE
DPGVKSVTKIYNYYKKFSYKTIVMGASFRNTGEIKALAGCDFLTISPKLLGELLQDNAKLVPVLSAKAAQ
ASDLEKIHLDEKSFRWLHNEDQMAVEKLSDGIRKFAADAVKLERMLTERMFNAENGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6174_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006755

ORF Size: 1011 bp

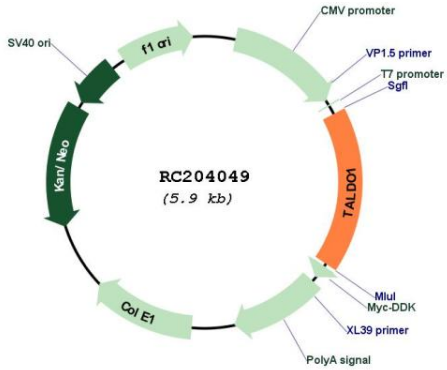
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

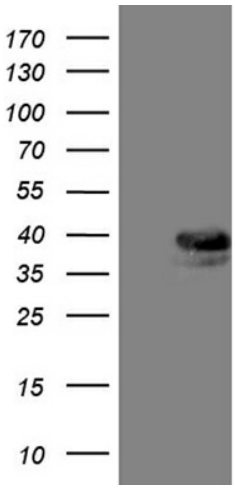
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_006755.2
RefSeq Size:	1319 bp
RefSeq ORF:	1014 bp
Locus ID:	6888
UniProt ID:	P37837
Cytogenetics:	11p15.5
Domains:	Transaldolase
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Pentose phosphate pathway
MW:	37.5 kDa
Gene Summary:	Transaldolase 1 is a key enzyme of the nonoxidative pentose phosphate pathway providing ribose-5-phosphate for nucleic acid synthesis and NADPH for lipid biosynthesis. This pathway can also maintain glutathione at a reduced state and thus protect sulfhydryl groups and cellular integrity from oxygen radicals. The functional gene of transaldolase 1 is located on chromosome 11 and a pseudogene is identified on chromosome 1 but there are conflicting map locations. The second and third exon of this gene were developed by insertion of a retrotransposable element. This gene is thought to be involved in multiple sclerosis. [provided by RefSeq, Jul 2008]

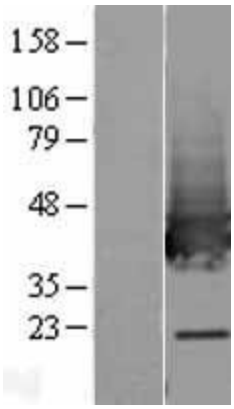
Product images:



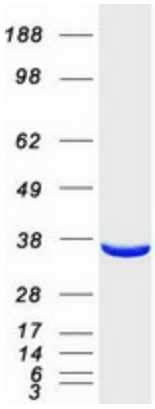
Circular map for RC204049



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TALDO1 (Cat# RC204049, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TALDO1 (Cat# [TA809857])(1:2000). Positive lysates [LY402020] (100ug) and [LC402020] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402020]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204049 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TALDO1 protein (Cat# [TP304049]). The protein was produced from HEK293T cells transfected with TALDO1 cDNA clone (Cat# RC204049) using MegaTran 2.0 (Cat# [TT210002]).