

Product datasheet for **MG221034**

Xdh (NM_011723) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Xdh (NM_011723) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Xdh
Synonyms:	X; XO; Xor; Xox; Xox-; Xox-1; Xox1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG221034 representing NM_011723 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGAGGACAACGGTAGATGAGTTGGTCTTCTTTGTGAATGGCAAAAAGGTGGTGGAGAAAAATGCAG
ACCCTGAAACAACACTTCTGGTCTACCTTAGAAGAAAGTTGGGGCTGTGCGGGACCAAGCTTGGCTGTGG
AGAAGGTGGCTGTGGGCATGCACCGTATGATCTCCAAGTATGACCGCCTTCCAGAACAGATCGTTTAT
TTTTCCGTCATGCTGCTTACCCCTCTGCTCCTTGCATCATGTTGCTGTGACAACGTGGAAGGCA
TAGGAAACACCAAGAAGCTGCATCCTGTCCAGGAGAGAATTGCCAAAAGCCATGGTCCAGTGTGGTT
CTGTACCCCTGGTATTGTCATGAGTATGTACACTGCTCCGAAACAAGCCTGAGCCTACTGTCCGAGGAG
ATCGAGAATGCCTTCCAAGGAACTCTGTGCTGTACAGGCTATAGACCCATCCTCCAGGGATTCCGGA
CCTTTGCCAAGGATGGTGGGTGCTGTGGAGGAAGTGGAAACAACCCAACTGCTGCATGAGCCAAACAAA
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GAGCCCATCTTTCCCCAGAGTTGCTGAGGCTGAAAGACTCCACGGAAGAGCTTGCCTTTGAAGGGG
AACGTGTGACCTGGATCCAGTTTCAACCATGGAGGAAGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
CAAGCTGGTGGTGGGAAACACAGAGATAGGCATTGAAATGAAATTTAAAAATATGCTATTTCCCTGATC
ATCTGCCACCTGGATCCTTGAACCTGACCTCAGTGGCAGTGGGCTGAGGGAATCCTTTGGAGCTG
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TCAAGCCAGGGACCACTGAGGTGCAGGAAGTGTCCCTTTGCTTTGGAGGGATGGTGCAGAACTGTCTC
AGCCCTCAAGACCACTCCGAAGCAGCTGTCCAAGTCTGGAATGAGGAGTTGCTGCAGGATGTGTGTGCT



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GGCTTGGCAGAGGAGCTGCACCTGGCCCCGATGCCCTGGTGGGATGGTGAATCCGGCGCACCTCA
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CTCGAGCTCAGCACGGAGACAGTAACGCCAAACAGCTCTTCCAGCTAGACAGCCCTGCCACTCCGGAGAA
GATCCGAAATGCTTGGTGGATCAGTTCACCACCTGTGTGCCACTGGAACACCAGAAAACCTGTAATCC
TGGTCCGTGAGGATC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG221034 representing NM_011723
 Red=Cloning site Green=Tags(s)

MTRTTVDELVFFVNGKVVVEKNADPETLLVYLRRKLGKCGTKLGCGECCGACTVMISKYDRLQNKIVH
 FSVNACLTPICSLHHVAVTTVEGIGNTKKLHPVQERIAKSHGSQCGFCTPGIVMSMYTLLRNKPEPTVEE
 IENAFQGNLCRCCTGYRPILOQFRTFAKDDGGCCGGSGNNPCCMSQTKDQTIAPSSSLFNPEDFKPLDPTQ
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 GLAEELHLAPDAPGGMVEFRRTLTL SFFFK FYLTVLQKLGRADLEGKGLDPTFASATLLFQKDPANV
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 VPGFVCFLTSEDVPGSNITGIFNDETVFAKDEVT CVGHIIGAVVADTPEHAHRAARGVKITYEDLPAIIT
 IQDAIKNSFYGPEVKIEKGLKKGFSEADNVVSGELYIGGQEHFYLETHCTIAVPKGEAGEMELFVSTQ
 NTMKTQSFIAKMLGVPDNRI VVRVKRMGGGFGGKETRSTL ISTAVALAAYKTRPVRCMLDRDEDMLITG
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 NTAFRGFGGPGQMLIAEYWMSEVAVTCGLPAEEVRRKNMYKEGDLTHFNQKLEGF LPRCWDECIASSQY
 QARKMEVEKFNRENCWKKRGLCIIPTKFGISFTLSFLNQQGALVHVYTDGSLVLLTHGGTEMGQGLHTKMV
 QVASRALKIPTSKIHITETSTNTVPNTSPTAASASADLNGQAIYEACQTI LKRLPEPKKKNP SGSWESWV
 MDAYTSAVLSATGFYKTPNLGYSFETNSGNPFHYFSYGVACSEVEIDCLTGDHKNLRTDIVMDVGSLSN
 PAIDIGQVEGAFVQGLGLFTMEELHYSPEGLHTRGSPSTYKIPAFGSIPIEFVSLLRDCPNKRAIYASK
 AVGEPPLFLASSIFFAIKDAIRAARAQHGDSNAKQLFQLDSPATPEKIRNACVDQFTTLCATGTPENCKS
 WSVRI

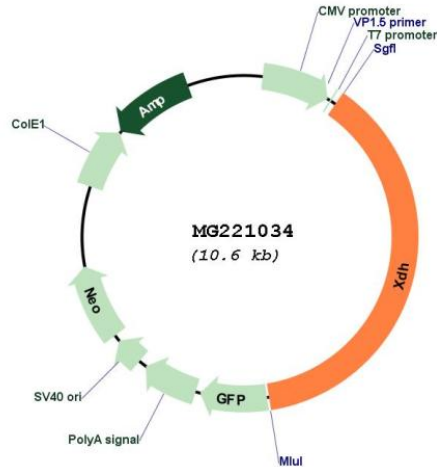
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_011723

ORF Size: 4005 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_011723.2](#), [NP_035853.2](#)

RefSeq Size: 4587 bp

RefSeq ORF: 4008 bp

Locus ID: 22436

UniProt ID: [Q00519](#)

Cytogenetics: 17 45.25 cM

Gene Summary:

This gene encodes a member of the xanthine dehydrogenase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The encoded protein exists as two distinct enzymatic forms, either as xanthine dehydrogenase, or as xanthine oxidase, and functions in purine degradation. Additional studies also suggest a role in adipogenesis, and a function as a structural protein in milk fat droplets in the lactating mammary gland. [provided by RefSeq, Jan 2014]