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Product datasheet for RC219402

Xanthine Oxidase (XDH) (NM_000379) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Xanthine Oxidase (XDH) (NM_000379) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	XDH
Synonyms:	XAN1; XO; XOR
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC219402 representing NM_000379 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGACAGCAGACAAATTGGTTTTCTTTGTGAATGGCAGAAAGGTGGTGGAGAAAAATGCAGATCCAGAGA CAACCCTTTTGGCCTACCTGAGAAGAAAGTTGGGGCTGAGTGGAACCAAGCTCGGCTGTGGAGAGGGGGG CTGCGGGGCTTGCACAGTGATGCTCTCCAAGTATGATCGTCTGCAGAACAAGATCGTCCACTTTTCTGCC AATGCCTGCCTGGCCCCCATCTGCTCCTTGCACCATGTTGCAGTGACAACTGTGGAAGGAATAGGAAGCA CCAAGACGAGGCTGCATCCTGTGCAGGAGAGAATTGCCAAAAGCCACGGCTCCCAGTGCGGGTTCTGCAC CCCTGGCATCGTCATGAGTATGTACACACTGCTCCGGAATCAGCCCGAGCCCACCATGGAGGAGATTGAG AATGCCTTCCAAGGAAATCTGTGCCGCTGCACAGGCTACAGACCCATCCTCCAGGGCTTCCGGACCTTTG CCAGGGATGGTGGATGCTGTGGAGGAGATGGGAATAATCCAAATTGCTGCATGAACCAGAAGAAAGACCA CTCAGTCAGCCTCTCGCCATCTTTATTCAAACCAGAGGAGTTCACGCCCCTGGATCCAACCCAGGAGCCC ATTTTTCCCCCAGAGTTGCTGAGGCTGAAAGACACTCCTCGGAAGCAGCTGCGATTTGAAGGGGAGCGTG TGACGTGGATACAGGCCTCAACCCTCAAGGAGCTGCTGGACCTCAAGGCTCAGCACCCTGACGCCAAGCT GGTCGTGGGGAACACGGAGATTGGCATTGAGATGAAGTTCAAGAATATGCTGTTTCCTATGATTGTCTGC CCAGCCTGGATCCCTGAGCTGAATTCGGTAGAACATGGACCCGACGGTATCTCCTTTGGAGCTGCTTGCC CCCTGAGCATTGTGGAAAAAACCCTGGTGGATGCTGTTGCTAAGCTTCCTGCCCAAAAGACAGAGGTGTT CAGAGGGGTCCTGGAGCAGCTGCGCTGGTTTGCTGGGAAGCAAGTCAAGTCTGTGGCGTCCGTTGGAGGG AACATCATCACTGCCAGCCCCATCTCCGACCTCAACCCCGTGTTCATGGCCAGTGGGGCCAAGCTGACAC TTGTGTCCAGAGGCACCAGGAGAACTGTCCAGATGGACCACACCTTCTTCCCTGGCTACAGAAAGACCCT GCTGAGCCCGGAGGAGATACTGCTCTCCATAGAGATCCCCTACAGCAGGGAGGGGGAGTATTTCTCAGCA TTCAAGCAGGCCTCCCGGAGAGAAGATGACATTGCCAAGGTAACCAGTGGCATGAGAGTTTTATTCAAGC CAGGAACCACAGAGGTACAGGAGCTGGCCCTTTGCTATGGTGGAATGGCCAACAGAACCATCTCAGCCCT CAAGACCACTCAGAGGCAGCTTTCCAAGCTCTGGAAGGAGGAGCTGCTGCAGGACGTGTGTGCAGGACTG GCAGAGGAGCTGCATCTGCCTCCCGATGCCCCTGGTGGCATGGTGGACTTCCGGTGCACCCTCACCCTCA

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Protein Sequence:

>RC219402 representing NM_000379
Red=Cloning site Green=Tags(s)

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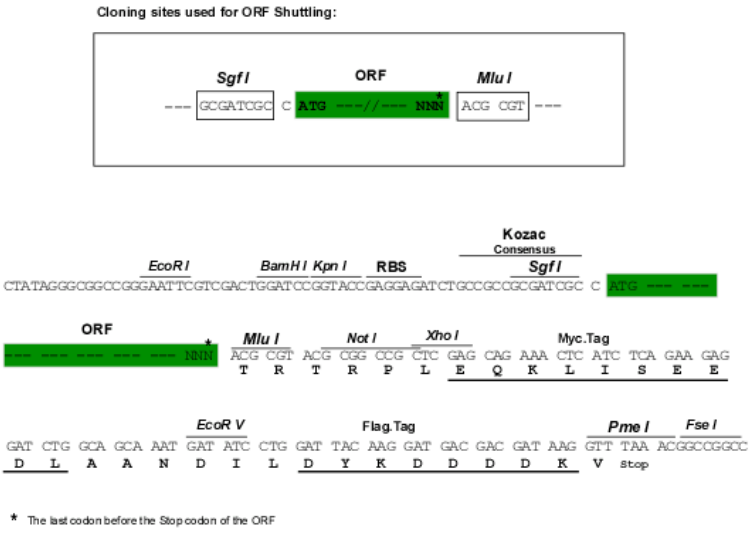
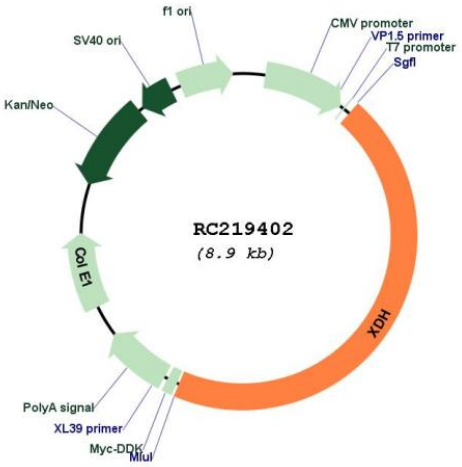
Chromatograms: https://cdn.origene.com/chromatograms/mk6168_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_000379
ORF Size:	3999 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_000379.4
RefSeq Size:	4428 bp
RefSeq ORF:	4002 bp
Locus ID:	7498
UniProt ID:	P47989
Cytogenetics:	2p23.1

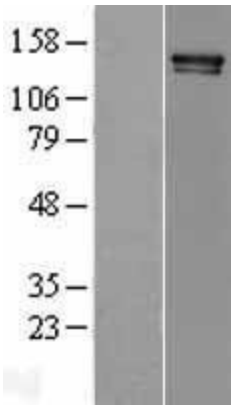
Protein Families: Druggable Genome

Protein Pathways: Caffeine metabolism, Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism

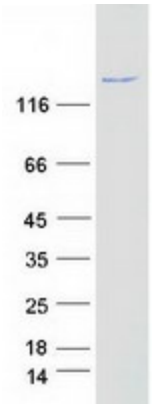
MW: 146.2 kDa

Gene Summary: Xanthine dehydrogenase belongs to the group of molybdenum-containing hydroxylases involved in the oxidative metabolism of purines. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Xanthine dehydrogenase can be converted to xanthine oxidase by reversible sulfhydryl oxidation or by irreversible proteolytic modification. Defects in xanthine dehydrogenase cause xanthinuria, may contribute to adult respiratory stress syndrome, and may potentiate influenza infection through an oxygen metabolite-dependent mechanism. [provided by RefSeq, Jan 2014]

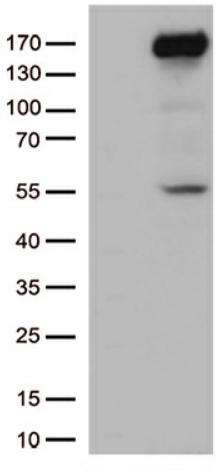
Product images:



Western blot validation of overexpression lysate (Cat# [LY400135]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219402 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified XDH protein (Cat# [TP319402]). The protein was produced from HEK293T cells transfected with XDH cDNA clone (Cat# RC219402) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY XDH (Cat# RC219402, 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-XDH (Cat# [TA812777])(1:500). Positive lysates [LY400135] (100ug) and [LC400135] (20ug) can be purchased separately from OriGene.