

# INFORMAL SEQUENCE LISTING

SEQ ID NO:1

GENBANK ACCESSION NO. NM\_000379

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), mRNA

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## 20 SEQ ID NO:2

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), CODING SEQUENCE (CDS)

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SEQ ID NO:3

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 2211C>T VARIANT ALLELE

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 25 3361 gcctacatgg acacagtgag cttgtctgcc actgggtttt atagaacacc caatctgggc  
 3421 tacagctttg agactaactc agggaaaccc ttccactact tcagctatgg ggtggcttgc  
 3481 tctgaagtag aaatcgactg cctaacagga gatcataaga acctccgcac agatattgtc  
 3541 atggatgttg gctccagtct aaacctgcc attgatattg gacaggtgga aggggcattt  
 3601 gtccagggcc ttggcctctt caccctagag gagctacact attccccga ggggagcctg  
 30 3661 cacaccctg gccctagcac ctacaagatc ccggcatttg gcagcatccc cattgagttc  
 3721 aggggtgtcc tgctccgcga ctgccccaac aagaaggcca tctatgcac gaaggctgtt  
 3781 ggagagccgc ccctcttcct ggctgcttct atcttctttg ccatcaaaga tgccatccgt  
 3841 gcagctcgag ctcagcacac aggtaataac gtgaaggaa tcttccggct agacagccct  
 3901 gccaccccg agaagatccg caatgcctgc gtggacaagt tcaccacct gtgtgtcact  
 35 3961 ggtgtccag aaaactgcaa accctggtct gtgaggtct aa

SEQ ID NO: 4

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 3030T>C VARIANT ALLELE

1 atgacagcag acaaattggt tttctttgtg aatggcagaa aggtgggtgga gaaaaatgca  
 40 61 gatccagaga caaccctttt ggcctacctg agaagaaagt tggggctgag tggaaccaag  
 121 ctcggtctgt gagagggggg ctgcggggct tgcacagtga tgctctccaa gtatgatcgt

181 ctgcagaaca agatcggtcca cttttctgcc aatgcctgcc tggcccccat ctgctccttg  
 241 caccatgttg cagtgacaac tgtggaagga ataggaagca ccaagacgag gctgcatcct  
 301 gtgcaggaga gaattgccaa aagccacggc tcccagtgcg ggttctgcac ccctggcatc  
 361 gtcattgagta tgtacacact gctccggaat cagcccagac ccaccatgga ggagattgag  
 5 421 aatgccttcc aaggaaatct gtgccgctgc acaggctaca gacccatcct ccagggcttc  
 481 cggacctttg ccagggatgg tggatgctgt ggaggagatg ggaataatcc aaattgctgc  
 541 atgaaccaga agaaagacca ctcatgcagc ctctcgccat ctttattcaa accagaggag  
 601 ttcacgcccc tggatccaac ccaggagccc atttttcccc cagagttgct gaggctgaaa  
 661 gacactcctc ggaagcagct gcgatttgaa ggggagcgtg tgacgtggat acaggcctca  
 10 721 accctcaagg agctgctgga cctcaaggct cagcaccctg acgccaagct ggtcgtgggg  
 781 aacacggaga ttggcattga gatgaagtcc aagaatatgc tgtttcctat gattgtctgc  
 841 ccagcctgga tccctgagct gaattcggta gaacatggac ccgacggtat ctcccttgga  
 901 gctgcttgcc ccctgagcat tgtggaaaaa accctgggtg atgctgttgc taagcttctc  
 961 gcccaaaaga cagaggtggt cagaggggtc ctggagcagc tgcgtgggtt tgctgggaag  
 15 1021 caagtcaagt ctgtggcgtc cgttggaggg aacatcatca ctgccagccc catctccgac  
 1081 ctcaaccccc tgttcatggc cagtggggcc aagctgacac ttgtgtccag aggcaccagg  
 1141 agaactgtcc agatggacca caccctcttc cctggctaca gaaagaccct gctgagcccg  
 1201 gaggagatac tgctctccat agagatcccc tacagcaggg agggggagta tttctcagca  
 1261 ttcaagcagg cctcccggag agaagatgac attgccaagg taaccagtgg catgagagtt  
 20 1321 ttattcaagc caggaaccac agaggtacag gagctggccc tttgctatgg tggaatggcc  
 1381 aacagaacca tctcagccct caagaccact cagaggcagc tttccaagct ctggaaggag  
 1441 gagctgctgc aggacgtgtg tgcaggactg gcagaggagc tgcattctgc tcccgatgcc  
 1501 cctggtggca tgggtgactt ccggtgcacc ctacacctca gcttcttctt caagttctac  
 1561 ctgacagtcc ttcagaagct gggccaagag aacctggaag acaagtgtgg taaactggac  
 25 1621 cccactttcg ccagtgaac tttactgttt cagaaagacc ccccagccga tgtccagctc  
 1681 ttccaagagg tgccaagggt tcagtctgag gaggacatgg tgggcccggc cctgccccac  
 1741 ctggcagcgg acatgcaggc ctctggtgag gccgtgtact gtgacgacat tcctcgctac  
 1801 gagaatgagc tgtctctccg gctggtcacc agcaccggg cccacgcca gatcaagtcc  
 1861 atagatacat cagaagctaa gaagggtcca ggggttgttt gtttcatttc cgctgatgat  
 30 1921 gttcctggga gtaacataac tggaatttgt aatgatgaga cagtctttgc gaaggataag  
 1981 gttacttgtg ttgggcatat cattggtgct gtggttgctg acaccccgga acacacacag  
 2041 agagctgccc aaggggtgaa aatcacctat gaagaactac cagccattat cacaattgag  
 2101 gatgctataa agaacaactc cttttatgga cctgagctga agatcgagaa aggggacctc  
 2161 aagaaggggt tttccgaagc agataatgtt gtgtcagggg agatatacat cgggtggcaa  
 35 2221 gagcacttct acctggagac tcatgcacc attgctgttc caaaaggcga ggcaggggag  
 2281 atggagctct ttgtgtctac acagaacacc atgaagacct agagctttgt tgcaaaaatg  
 2341 ttgggggttc cagcaaaccg gattgtgggt cgagtgaaga gaatgggagg aggctttgga  
 2401 ggcaaggaga cccggagcac tgtggtgtcc acggcagtg ccctggctgc atataagacc  
 2461 ggccgacctg tgcgatgat gctggaccgt gatgaggaca tgctgataac tgggtggcaga  
 40 2521 catcccttcc tggccagata caagggtggc ttcattgaaga ctgggacagt tgtggctctt  
 2581 gaggtggacc acttcagcaa tgtggggaac acccaggatc tctctcagag tattatggaa

2641 cgagctttat tccacatgga caactgctat aaaatcccca acatccgggg cactgggcgg  
 2701 ctgtgcaaaa ccaaccttcc ctccaacacg gccttccggg gctttggggg gccccagggg  
 2761 atgctcattg ccgagtgtg gatgagtga gttgcagtga cctgtgggat gcctgcagag  
 2821 gaggtgcgga gaaaaaacct gtacaaagaa ggggacctga cacacttcaa ccagaagctt  
 5 2881 gagggtttca ccttgcccag atgctgggaa gaatgcctag caagctctca gtatcatgct  
 2941 cggaagagtg aggttgacaa gttcaacaag gagaattggt ggaaaaagag aggattgtgc  
 3001 ataattccca ccaagtttg aataagcttc acagttcctt ttctgaatca ggcaggagcc  
 3061 ctacttcatg tgtacacaga tggctctgtg ctgctgacct acgggggggac tgagatgggc  
 3121 caaggccttc ataccaaaat ggtccagggt gccagtagag ctctgaaaat cccacactct  
 10 3181 aagatttata tcagcgagac aagcactaac actgtgcca acacctctcc cacggctgcc  
 3241 tctgtcagcg ctgacctcaa tggacaggcc gtctatgagg cttgtcagac catcttgaaa  
 3301 aggctggaac cctacaagaa gaagaatccc agtggctcct gggaagactg ggtcacagct  
 3361 gcctacatgg acacagttag cttgtctgcc actgggtttt atagaacacc caatctgggc  
 3421 tacagctttg agactaactc agggaaacccc ttccactact tcagctatgg ggtggcttgc  
 15 3481 tctgaagtag aaatcgactg cctaacagga gatcataaga acctccgcac agatattgtc  
 3541 atggatgttg gctccagtct aaacctgccc attgatattg gacagggtga aggggcattt  
 3601 gtccagggcc ttggcctctt caccctagag gagctacact attccccga ggggagcctg  
 3661 cacaccctg gccctagcac ctacaagatc ccggcatttg gcagcatccc cattgagttc  
 3721 aggggtgtcc tgtccgcga ctgccccaac aagaaggcca tctatgcac gaaggctgtt  
 20 3781 ggagagccgc cctcttctt ggctgcttct atcttctttg ccatcaaaga tgccatccgt  
 3841 gcagctcgag ctgagcacac aggtataaac gtgaaggaa tcttccggct agacagccct  
 3901 gccaccccg agaagatccg caatgcctgc gtggacaagt tcaccacct gtgtgtcact  
 3961 ggtgtcccag aaaactgcaa accctggtct gtgagggct aa

## 25 SEQ ID NO:5

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 837C>T VARIANT ALLELE

1 atgacagcag acaaattggt tttctttgtg aatggcagaa aggtgggtgga gaaaaatgca  
 61 gatccagaga caacctttt ggctacctg agaagaaagt tggggctgag tggaaaccaag  
 121 ctgggtgtg gagagggggg ctgcggggtg tgcacagtga tgcctccaa gtatgatcgt  
 30 181 ctgcagaaca agatcgcca cttttctgcc aatgcctgcc tggcccccat ctgctccttg  
 241 caccatgttg cagtgacaac tgtggaagga ataggaagca ccaagacgag gctgcatcct  
 301 gtgcaggaga gaattgcaa aagccacggc tccagtgcg gggtctgcac ccctggcatc  
 361 gtcagtagta tgtacacact gctccggaat cagcccgagc ccaccatgga ggagattgag  
 421 aatgccttcc aaggaaatct gtgccgtgc acaggctaca gacctatcct ccagggttcc  
 35 481 cggacctttg ccagggatgg tggatgctgt ggaggagatg ggaataatcc aaattgctgc  
 541 atgaaccaga agaaagacca ctgagtcagc ctctcgccat ctttattcaa accagaggag  
 601 ttcacgcccc tggatccaac ccaggagccc atttttcccc cagagttgct gaggctgaaa  
 661 gacactctc ggaagcagct gcgatttgaa ggggagcgtg tgacgtggat acaggcctca  
 721 accctcaagg agctgctgga cctcaaggct cagcaccctg acgccaagct ggtcgtgggg  
 40 781 aacacggaga ttggcattga gatgaagtcc aagaatatgc tgtttcctat gattgtttgc  
 841 ccagcctgga tccctgagct gaattcggta gaacatggac ccgacggtat ctcttttggga



901 gctgcttgcc ccctgagcat tgtggaaaaa accctggtgg atgctgttgc taagcttcct  
 961 gccc aaaaga cagaggtgtt cagaggggtc ctggagcagc tgcgctggtt tgctgggaag  
 1021 caagtcaagt ctgtggcgtc cgttggaggg aacatcatca ctgccagccc catctccgac  
 1081 ctcaaccccc tggtcatggc cagtggggcc aagctgacac ttgtgtccag aggcaccagg  
 5 1141 agaactgtcc agatggacca caccttcttc cctggctaca gaaagacct gctgagccccg  
 1201 gaggagatac tgctctccat agagatcccc tacagcaggg agggggagta tttctcagca  
 1261 ttcaagcagg cctcccggag agaagatgac attgccaagg taaccagtgg catgagagtt  
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 1381 aacagaacca tctcagccct caagaccact cagaggcagc tttccaagct ctggaaggag  
 10 1441 gagctgctgc aggacgtgtg tgcaggactg gcagaggagc tgcatctgcc tcccgatgcc  
 1501 cctggtggca tgggtggactt ccggtgcacc ctaccctca gcttcttctt caagttctac  
 1561 ctgacagtcc ttcagaagct gggccaagag aacctggaag acaagtgtgg taaactggac  
 1621 cccactttcg ccagtgaac tttactgttt cagaaagacc cccagccga tgtccagctc  
 1681 ttccaagagg tgcccaaggg tcagtctgag gaggacatgg tgggcggcc cctgccccac  
 15 1741 ctggcagcgg acatgcaggc ctctggtgag gccgtgtact gtgacgacat tcctcgctac  
 1801 gagaatgagc tgtctctccg gctggtcacc agcaccggg cccacgcca gatcaagtcc  
 1861 atagatacat cagaagctaa gaaggttcca ggggttggtt gtttcatttc cgctgatgat  
 1921 gttcctggga gtaacataac tggaatttgt aatgatgaga cagtctttgc gaaggataag  
 1981 gttacttgtg ttgggcatac cattggtgct gtggttgctg acaccggga acacacacag  
 20 2041 agagctgccc aaggggtgaa aatcacctat gaagaactac cagccattat cacaattgag  
 2101 gatgctataa agaacaactc cttttatgga cctgagctga agatcgagaa aggggaccta  
 2161 aagaaggggt tttccgaagc agataatgtt gtgtcagggg agatatacat cgggtggcaa  
 2221 gagcacttct acctggagac tcaactgcacc attgctgttc caaaaggcga ggcaggggag  
 2281 atggagctct ttgtgtctac acagaacacc atgaagacc agagctttgt tgcaaaaatg  
 25 2341 ttgggggttc cagcaaaccg gattgtggtt cgagtgaaga gaatgggagg aggccttgga  
 2401 ggcaaggaga cccggagcac tgtggtgtcc acggcagtgg ccctggctgc atataagacc  
 2461 ggccgccctg tgcgatgcat gctggaccgt gatgaggaca tgctgataac tgggtggcaga  
 2521 catcccttcc tggccagata caaggttggc ttcatagaaga ctgggacagt tgtggctctt  
 2581 gaggtggacc acttcagcaa tgtggggaac acccaggatc tctctcagag tattatggaa  
 30 2641 cgagctttat tccacatgga caactgctat aaaatcccca acatccgggg cactgggcgg  
 2701 ctgtgcaaaa ccaaccttcc ctccaacacg gccttcgggg gctttggggg gccccagggg  
 2761 atgctcattg ccgagtgtct gatgagtga gttgcagtga cctgtgggat gcctgcagag  
 2821 gaggtgcgga gaaaaaacct gtacaaagaa ggggacctga cacacttcaa ccagaagctt  
 2881 gagggtttca ccttgcccag atgctgggaa gaatgcctag caagctctca gtatcatgct  
 35 2941 cggaagagtg aggttgacaa gttcaacaag gagaattgtt ggaaaaagag aggattgtgc  
 3001 ataattccca ccaagtttg aataagcttt acagttcctt ttctgaatca ggcaggagcc  
 3061 ctacttcatg tgtacacaga tggctctgtg ctgctgaccc acggggggac tgagatgggc  
 3121 caaggccttc ataccaaaat ggtccagggt gccagtagag ctctgaaaat cccacctct  
 3181 aagatttata tcagcgagac aagcactaac actgtgcca acacctctcc cacggctgcc  
 40 3241 tctgtcagcg ctgacctcaa tggacaggcc gtctatgcgg cttgtcagac catcttgaaa  
 3301 aggctggaac cctacaagaa gaagaatccc agtggctcct gggaagactg ggtcacagct

3361 gcctacatgg acacagtgag cttgtctgcc actggggttt atagaacacc caatctgggc  
 3421 tacagctttg agactaactc aggggaacccc ttccactact tcagctatgg ggtggcttgc  
 3481 tctgaagtag aaatcgactg cctaacagga gatcataaga acctccgcac agatattgtc  
 3541 atggatgttg gctccagtct aaaccctgcc attgatattg gacaggtgga aggggcattt  
 5 3601 gtccagggcc ttggcctctt caccctagag gagctacact attccccga ggggagcctg  
 3661 cacacccgtg gccctagcac ctacaagatc cgggcatttg gcagcatccc cattgagtgc  
 3721 aggggtgtccc tgctccgcga ctgccccaac aagaaggcca tctatgcac gaaggctgtt  
 3781 ggagagccgc ccctcttctt ggctgtctct atcttctttg ccatacaaga tgccatccgt  
 3841 gcagctcgag ctgagcacac aggtataaac gtgaaggaaac tcttccggct agacagccct  
 10 3901 gccaccccg agaagatccg caatgcctgc gtggacaagt tcaccacct gtgtgtcact  
 3961 ggtgtcccag aaaactgcaa accctggtct gtgaggtct aa

SEQ ID NO:6

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 3717G>A VARIANT ALLELE

15 1 atgacagcag acaaattggt tttctttgtg aatggcagaa aggtggtgga gaaaaatgca  
 61 gatccagaga caaccctttt ggcctacctg agaagaaagt tggggctgag tggaaccaag  
 121 ctgggtgtg gagagggggg ctgcggggct tgcacagtga tgctctccaa gtatgatcgt  
 181 ctgcagaaca agatcgtcca cttttctgcc aatgcctgcc tggcccccat ctgctccttg  
 241 caccatgttg cagtgacaac tgtggaagga ataggaagca ccaagacgag gctgcacact  
 20 301 gtgcaggaga gaattgccaa aagccacggc tcccagtgcg ggttctgcac ccctggcatc  
 361 gtcagttagta tgtacacact gctccggaat cagcccgagc ccaccatgga ggagattgag  
 421 aatgccttcc aaggaaatct gtgccgctgc acaggtaca gacctatcct ccagggtctc  
 481 cggacctttg ccagggatgg tggatgctgt ggaggagatg ggaataatcc aaattgctgc  
 541 atgaaccaga agaaagacca ctgagtcagc ctctcgccat ctttattcaa accagaggag  
 25 601 ttcacgcccc tggatccaac ccaggagccc atttttcccc cagagttgct gaggctgaaa  
 661 gacactcctc ggaagcagct gcgatttgaa ggggagcgtg tgacgtggat acaggcctca  
 721 accctcaagg agctgctgga cctcaaggct cagcacctg acgccaagct ggtcgtgggg  
 781 aacacggaga ttggcattga gatgaagttc aagaatatgc tgtttctat gatgtctgc  
 841 ccagcctgga tccctgagct gaattcggtg gaacatggac ccgacggtat ctcttttga  
 30 901 gctgcttgcc ccctgagcat tgtggaaaaa accctggtgg atgctgttgc taagcttct  
 961 gcccaaaaga cagaggtgtt cagaggggtc ctggagcagc tgcgctggtt tgctgggaag  
 1021 caagtcaagt ctgtggcgtc cgttggaggg aacatcatca ctgccagccc catctccgac  
 1081 ctcaaccccg tgttcatggc cagtggggcc aagctgacac ttgtgtccag aggcaccagg  
 1141 agaactgtcc agatggacca cacttcttcc cctggctaca gaaagaccct gctgagccc  
 35 1201 gaggagatac tgctctccat agagatcccc tacagcaggg agggggagta tttctcagca  
 1261 ttcaagcagg cctcccggag agaagatgac attgccaaag taaccagtgg catgagagtt  
 1321 ttattcaagc caggaaccac agaggtacag gagctggccc tttgctatgg tggaatggcc  
 1381 aacagaacca tctcagccct caagaccact cagaggcagc tttccaagct ctggaaggag  
 1441 gagctgctgc aggacgtgtg tgcaggactg gcagaggagc tgcactctgc tcccgatgcc  
 40 1501 cctggtggca tgggtggactt ccggtgcacc ctaccctca gcttcttctt caagttctac  
 1561 ctgacagtcc ttcagaagct gggccaagag aacctggaag acaagtgtgg taaactggac

1621 ccacttttcg ccagtgcac tttactgttt cagaaagacc cccagccga tgtccagctc  
 1681 ttccaagagg tgcccaaggg tcagtctgag gaggacatgg tgggcccggc cctgccccac  
 1741 ctggcagcgg acatgcaggc ctctgggtgag gccgtgtact gtgacgacat tcctcgctac  
 1801 gagaatgagc tgtctctccg gctgggtcacc agcaccggg cccacgcaa gatcaagtcc  
 5 1861 atagatacat cagaagctaa gaagggtcca ggggtttgttt gtttcatttc cgctgatgat  
 1921 gttcctggga gtaacataac tggaatttgt aatgatgaga cagtctttgc gaaggataag  
 1981 gttacttgtg ttgggcatat cattgggtgct gtgggtgctg acaccccggg acacacacag  
 2041 agagctgccc aaggggtgaa aatcacctat gaagaactac cagccattat cacaattgag  
 2101 gatgctataa agaacaactc cttttatgga cctgagctga agatcgagaa aggggaccta  
 10 2161 aagaaggggt tttccgaagc agataatgtt gtgtcagggg agatatacat cgggtggccaa  
 2221 gagcacttct acctggagac tcaactgcacc attgctgttc caaaaggcga ggcaggggag  
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 2341 ttgggggttc cagcaaaccg gattgtggtt cgagtgaaga gaatgggagg aggccttgga  
 2401 ggcaaggaga cccggagcac tgtggtgtcc acggcagtgg ccctggctgc atataagacc  
 15 2461 ggccgccctg tgcgatgcat gctggaccgt gatgaggaca tgetgataac tgggtggcaga  
 2521 catcccttcc tggccagata caaggttggc ttcatagaaga ctgggacagt tgtggctctt  
 2581 gaggtggacc acttcagcaa tgtggggaac acccaggatc tctctcagag tattatggaa  
 2641 cgagctttat tccacatgga caactgctat aaaatcccca acatccgggg cactgggcgg  
 2701 ctgtgcaaaa ccaaccttcc ctccaacacg gccttccggg gctttggggg gccccagggg  
 20 2761 atgctcattg ccgagtgtct gatgagtga gttgcagtga cctgtgggat gcctgcagag  
 2821 gaggtgcgga gaaaaaacct gtacaaagaa ggggacctga cacacttcaa ccagaagctt  
 2881 gagggtttca ccttgcccag atgctgggaa gaatgcctag caagctctca gtatcatgct  
 2941 cggaagagtg aggttgacaa gttcaacaag gagaattgtt ggaaaaagag aggattgtgc  
 3001 ataattccca ccaagtttgg aataagcttt acagttcctt ttctgaatca ggcaggagcc  
 25 3061 ctacttcatg tgtacacaga tggctctgtg ctgctgacct acgggggggac tgagatgggc  
 3121 caaggccttc ataccaaaat ggtccagggt gccagtagag ctctgaaaat cccacctct  
 3181 aagatttata tcagcgagac aagcactaac actgtgcccc acacctctcc cacggctgcc  
 3241 tctgtcagcg ctgacctcaa tggacaggcc gtctatgctg cttgtcagac catcttga  
 3301 aggttggaac cctacaagaa gaagaatccc agtggctcct gggaagactg ggtcacagct  
 30 3361 gcctacatgg acacagtgag cttgtctgcc actgggtttt atagaacacc caatctgggc  
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 3481 tctgaagtag aaatcgactg cctaacagga gatcataaga acctccgcac agatattgtc  
 3541 atggatgttg gctccagtct aaacctgcc attgatattg gacagggtga aggggcattt  
 3601 gtccagggcc ttggcctctt caccctagag gagctacact attccccga ggggagcctg  
 35 3661 cacaccgctg gccctagcac ctacaagatc ccggcatttg gcagcatccc cattgaattc  
 3721 aggggtgtcc tgctccgcga ctgccccaac aagaaggcca tctatgcac gaaggctgtt  
 3781 ggagagccgc ccctcttctt ggctgcttct atcttctttg ccatcaaaga tgccatccgt  
 3841 gcagctcgag ctgacacac aggttaataac gtgaagggaac tcttccggct agacagccct  
 3901 gccacccggg agaagatccg caatgcctgc gtggacaagt tcaccacctt gtgtgtcact  
 40 3961 ggtgtccag aaaactgcaa accctggtct gtgaggtct aa

SEQ ID NO:7

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 2107A>G VARIANT ALLELE

1 atgacagcag acaaattggt tttctttgtg aatggcagaa aggtggtgga gaaaaatgca  
61 gatccagaga caaccctttt ggcctacctg agaagaaagt tggggctgag tggaaccaag  
5 121 ctcggtgtg gagagggggg ctgcggggct tgcacagtga tgctctccaa gtatgatcgt  
181 ctgcagaaca agatcgcca cttttctgcc aatgcctgcc tggcccccat ctgctccttg  
241 caccatgttg cagtgacaac tgtggaagga ataggaagca ccaagacgag gctgcatcct  
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30 SEQ ID NO:8

HOMO SAPIENS XANTHINE DEHYDROGENASE (XDH), 1936A>G VARIANT ALLELE

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SEQ ID NO:9

GENBANK ACCESSION NO. NM\_017947

20 HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), mRNA  
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SEQ ID NO:10

HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), CODING SEQUENCE (CDS)

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 2461 gggcaacgaa accagcatgt tttccaaaaa ctttctgaga gtcgtgaaac aaaggtgaac  
 30 2521 tttggcatgt acctgatgca tgcattcatt gatattatcct ccccatgttt cctgtctgta  
 2581 ggatctcagg tgctccctgt gttgaaagag aatgtggaag gtcattgatt acctgcatct  
 2641 gagaaacacc aggatgttac ctcttaa

SEQ ID NO:11

35 HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), 2107C>A VARIANT ALLELE  
 1 atggccggcg cggcgggcga gtcagggcg gagctgtgga ccttcgcggg tccccgggac  
 61 ccgagcgcac cgcggttagc ctacggctac ggcccgggca gcctgcgcga gctgcgggcg  
 121 cgcgagttca gccgctggc aggaactgtc tatcttgacc atgcagggtc caccttggtc  
 181 tcccagagcc agctcgaaag cttcactagt gatctcatgg aaaacactta tggtaatcct  
 40 241 cacagccaga acatcagcag caagctcacc catgacactg tggagcaggt gcgctacaga  
 301 atcctggcgc acttccacac caccgcagaa gactacactg tgatcttcac tgccgggagc

361 acggctgctc tcaaactggt ggcagaggcc tttccatggg tgtcccaggg cccagagagc  
 421 agtgggagtc gcttctgtta cctcaccgac agccacacct ccgtagtggg tatgcggaac  
 481 gtgaccatgg ctataaatgt catatccacc ccggtcaggc cagaggacct gtggtctgca  
 541 gaggaacgta gtgcttcagc cagcaaccca gactgccagc tgccgcatct cttctgctac  
 5 601 ccagctcaga gtaacttttc tggagtcaga taccctctgt cctggataga agaggtcaag  
 661 tctgggcggt tgcaccctgt gagcacgcct ggggaagtgg ttgtgctgct ggatgcagcc  
 721 tcctacgtga gcacctcgcc tttggacctg tcagctcacc aggccgactt tgtccccatc  
 781 tccttctata agatcttcgg gtttcctaca ggccctggcg ctctgctggg ccataatcgt  
 841 gcggctcctc tactgaggaa gacctacttt ggaggaggga cagcctctgc gtacctagca  
 10 901 ggagaagact tctacatccc gaggcagtcg gtagctcaga ggtttgaaga tggcaccatc  
 961 tcattccttg atgttatcgc gctaaaacat ggatttgaca ccctagagcg cctcacaggt  
 1021 ggaatggaga atataaagca gcacaccttc accttggctc agtataccta cgtggccctg  
 1081 tcctctctcc agtaccctaa tggagccctt gtggtgcgga tttacagcga ttctgagttc  
 1141 agcagccctg aggttcaggg cccaatcacc aattttaatg tgctggatga caaagggaac  
 15 1201 atcattgggt actcccaggt ggacaaaatg gccagtcttt acaacatcca cctgcgaact  
 1261 ggctgcttct gtaacactgg ggccctgccag aggcacctgg gcataagcaa cgagatggtc  
 1321 aggaagcatt ttcaggctgg tcatgtctgt ggggacaata tggacctcat agatgggcag  
 1381 cccacaggat ctgtgaggat ttcatttggg tacatgtcga cgctggatga tgtccaggcc  
 1441 tttcttaggt tcatcataga cactcgcttg cactcatcag gggactggcc tgtccctcag  
 20 1501 gcccatgctg acaccgggga gactggagcc ccatcagcag acagccaggc tgatgttata  
 1561 cctgctgtca tgggcagacg tagcctctcg cctcaggaag atgccctcac aggtccagg  
 1621 gtttggaaca actcgtctac tgtgaatgct gtgcctgtgg cccacacctg gtgtgatgtc  
 1681 gccagaacct agccgactcc ttcagagaaa gctgcaggag tcctggaggg ggcccttggg  
 1741 ccacatgttg tactaacct ttatctctat ccaatcaaat cctgtgctgc atttgaggtg  
 25 1801 accaggtggc ctgtaggaaa ccaagggtg ctatatgacc ggagctggat ggttgtgaat  
 1861 cacaatgggt tttgcctgag tcagaagcag gaaccccgcc tctgcctgat ccagcccttc  
 1921 atcgacttgc ggcaaaggat catggtcacc aaagccaaag ggatggagcc tatagaggtg  
 1981 cctcttgagg aaaatagtga acggactcag attcgccaaa gcagggtctg tgctgacaga  
 2041 gtaagtactt atgattgtgg agaaaaaatt tcaagctggg tgtcaacatt ttttggccgt  
 30 2101 ccttgtaatt tgatcaaaca aagttcaaac tctcaaagga atgcaaagaa gaaacatgga  
 2161 aaagatcaac ttcctggtac aatggccacc ctttctctgg tgaatgaggc acagtatctg  
 2221 ctgatcaaca catccagtat tttggaactt caccggcaac taaacaccag tgatgagaat  
 2281 ggaaaggagg aattattctc actgaaggat ctcagcttgc gttttcgtgc caatattatt  
 2341 atcaatggaa aaagggtttt tgaagaagag aatgggatg agatttcaat tggctctttg  
 35 2401 cgtttccagg ttttggggcc ttgtcacaga tgccagatga tttgcatcga ccagcaaact  
 2461 gggcaacgaa accagcatgt tttccaaaaa ctttctgaga gtctgaaac aaaggtgaac  
 2521 tttggcatgt acctgatgca tgcattcttg gatttatcct ccccatgttt cctgtctgta  
 2581 ggatctcagg tgctccctgt gttgaaagag aatgtggaag gtcattgattt acctgcatct  
 2641 gagaaacacc aggatgttac ctcttaa

40

SEQ ID NO:12

HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), 509C>T VARIANT ALLELE

1 atggccggcg cgccggcgga gtcagggcg gagctgtgga ccttcgcggg ttcccgggac  
61 ccgagcgcac cgccggctagc ctacggctac ggcccgggca gcctgcgcga gctgcgggcg  
5 121 cgcgagttca gccgcctggc aggaactgtc tatcttgacc atgcagggtgc caccttggtc  
181 tcccagagcc agctcgaaag cttcactagt gatctcatgg aaaacactta tggtaatcct  
241 cacagccaga acatcagcag caagctcacc catgacactg tggagcaggc gcgctacaga  
301 atcctggcgc acttcacac caccgcagaa gactacactg tgatcttcac tgccgggagc  
361 acggctgctc tcaaactggc ggcagaggcc tttccatggg tgtcccaggc ccagagagc  
10 421 agtgggagtc gcttctgtta cctcacgcac agccacacct ccgtagtggg tatgcggaac  
481 gtgaccatgg ctataaatgt catatccatc ccggtcaggc cagaggacct gtggtctgca  
541 gaggaacgta gtgcttcagc cagcaacca gactgccagc tgccgcacct cttctgctac  
601 ccagctcaga gtaacttttc tggagtcaga taccacctgt cctggataga agaggccaag  
661 tctgggaggc tgcacctgt gagcacgcct ggaagtggc ttgtgctgct ggatgcagcc  
15 721 tcctacgtga gcacctgcc tttggacctg tcagctcacc aggcgcacct tgtccccatc  
781 tccttctata agatcttcgg gtttcttaca ggccggggcg ctctgctggc ccataatcgt  
841 gcggctctc tactgaggaa gacctacttt ggaggaggga cagcctctgc gtacctagca  
901 ggagaagact tctacatccc gaggcagtcg gtagctcaga ggtttgaaga tggcaccatc  
961 tcattccttg atgttatcgc gctaaaacat ggatttgaca ccctagagcg cctcacaggc  
20 1021 ggaatggaga atataaagca gcacaccttc accttggtc agtataccta cgtggccctg  
1081 tcctctctcc agtaccctaa tggagccct gtggtgcgga ttacagcga ttctgagttc  
1141 agcagccctg aggttcaggc ccaatcatc aattttaatg tgctggatga caaagggaac  
1201 atcattggtt actcccaggc ggacaaaatg gccagctctt acaacatcca cctgcgaact  
1261 ggctgcttct gtaacactgg ggccctgccag aggcacctgg gcataagcaa cgagatggc  
25 1321 aggaagcatt ttcaggctgg tcatgtctgt ggggacaata tggacctcat agatgggcag  
1381 cccacaggat ctgtgaggat ttcatttgga tacatgtcga cgctggatga tgtccaggcc  
1441 tttcttaggt tcatcataga cactcgccct cactcatcag gggactggcc tgtccctcag  
1501 gcccatgctg acaccgggga gactggagcc ccacagcag acagccaggc tgatgttata  
1561 cctgctgtca tgggcagacg tagcctctcg cctcaggaag atgccctcac aggcctcagg  
30 1621 gtttggaaca actcgtctac tgtgaatgct gtgcctgtgg cccacctgt gtgtgatgtc  
1681 gccagaacct agccgactcc ttcagagaaa gctgcaggag tccctggaggg ggcccttggg  
1741 ccacatgttg tactaacct ttatctctat ccaatcaaat cctgtgctgc atttgaggcg  
1801 accagggtgg ctgtaggaaa ccaagggtc ctatatgacc ggagctggat ggttgtgaat  
1861 cacaatggcg tttgcctgag tcagaagcag gaacccggc tctgcctgat ccagcccttc  
35 1921 atcgacttgc ggcaaaggat catggtcatc aaagccaaag ggatggagcc tatagaggcg  
1981 cctcttgagg aaaatagtga acggactcag attcgccaaa gcagggtctg tgctgacaga  
2041 gtaagtactt atgattgtgg agaaaaaatt tcaagctggc tgtcaacatt ttttggccgt  
2101 ccttgtcatt tgatcaaaca aagttcaaac tctcaaagga atgcaaagaa gaaacatgga  
2161 aaagatcaac ttcctggtag aatggccacc ctttctctgg tgaatgaggc acagtatctg  
40 2221 ctgatcaaca catccagtat tttggaactt caccggcaac taaacaccag tgatgagaat  
2281 ggaaaggagg aattattctc actgaaggat ctcagcttgc gtttctgtgc caatattatt

2341 atcaatggaa aaagggcttt tgaagaagag aaatgggatg agatttcaat tggtctcttg  
 2401 cgtttccagg ttttggggcc ttgtcacaga tgccagatga tttgcatcga ccagcaaact  
 2461 gggcaacgaa accagcatgt tttccaaaaa ctttctgaga gtcgtgaaac aaaggtgaac  
 2521 tttggcatgt acctgatgca tgcattcattg gatttatcct ccccatgttt cctgtctgta  
 5 2581 ggatctcagg tgctccctgt gttgaaagag aatgtggaag gtcattgattt acctgcatct  
 2641 gagaaacacc aggatgttac ctctctaa

SEQ ID NO:13

HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), 1072G>A VARIANT ALLELE

10 1 atggccggcg cggcggcgga gtcagggcgg gagctgtgga ccttcgcggg ttccccgggac  
 61 ccgagcgcac cgcggttagc ctacggctac ggccccggca gcctgcgcga gctgcgggcg  
 121 cgcgagttca gccgcctggc aggaactgtc tatcttgacc atgcaggtgc caccttggtc  
 181 tcccagagcc agctcgaaag cttcactagt gatctcatgg aaaacactta tggtaatcct  
 241 cacagccaga acatcagcag caagctcacc catgacactg tggagcaggt gcgctacaga  
 15 301 atcctggcgc acttccacac caccgcagaa gactacactg tgatcttcac tgccgggagc  
 361 acggctgctc tcaaactggg ggcagaggcc tttccatggg tgtcccaggg cccagagagc  
 421 agtgggagtc gcttctgtta cctcaccgac agccacacct ccgtagtggg tatgcggaac  
 481 gtgaccatgg ctataaatgt catatccacc ccggtcaggc cagaggacct gtggtctgca  
 541 gaggaacgta gtgcttcagc cagcaaccca gactgccagc tgccgcacct cttctgctac  
 20 601 ccagctcaga gtaacttttc tggagtcaga taccacctgt cctggataga agaggtcaag  
 661 tctgggcggt tgcaccctgt gagcacgcct gggaagtggg ttgtgctgct ggatgcagcc  
 721 tcctacgtga gcacctcgcc tttggacctg tcagctcacc aggccgactt tgtccccatc  
 781 tccttctata agatcttcgg gtttctctaca ggccctggcg ctctgctggg ccataatcgt  
 841 gcggctcttc tactgaggaa gacctacttt ggaggaggga cagcctctgc gtacctagca  
 25 901 ggagaagact tctacatccc gaggcagtcg gtagctcaga ggtttgaaga tggcaccatc  
 961 tcattccttg atgttatcgc gctaaaacat ggatttgaca ccctagagcg cctcacaggt  
 1021 ggaatggaga atataaagca gcacaccttc accttggtc agtataccta catggccctg  
 1081 tcctctctcc agtaccctaa tggagccctt gtggtgcgga ttacagcga ttctgagttc  
 1141 agcagccctg aggttcaggg cccaatcatc aattttaatg tgctggatga caaagggaac  
 30 1201 atcattgggtt actcccaggt ggacaaaatg gccagtcttt acaacatcca cctgcgaact  
 1261 ggctgcttct gtaacactgg ggccctgccag aggcacctgg gcataagcaa cgagatggtc  
 1321 aggaagcatt ttcaggctgg tcatgtctgt ggggacaata tggacctcat agatgggcag  
 1381 cccacaggat ctgtgaggat ttcatttgga tacatgtcga cgctggatga tgtccaggcc  
 1441 tttcttaggt tcatcataga cactcgcttg cactcatcag gggactggcc tgtccctcag  
 35 1501 gcccatgctg acaccgggga gactggagcc ccatcagcag acagccaggc tgatgttata  
 1561 cctgctgtca tgggcagacg tagcctctcg cctcaggaag atgccctcac aggtccagg  
 1621 gtttggaaca actcgtctac tgtgaatgct gtgcctgtgg cccacctgt gtgtgatgtc  
 1681 gccagaacct agccgactcc ttcagagaaa gctgcaggag tcttgagggg ggcccttggg  
 1741 ccacatgttg tactaacct ttatctctat ccaatcaaat cctgtgctgc atttgagggtg  
 40 1801 accaggtggc ctgtaggaaa ccaagggtg ctatatgacc ggagctggat ggttgtgaat  
 1861 cacaatggtg tttgcctgag tcagaagcag gaaccccggc tctgcctgat ccagcccttc

1921 atcgacttgc ggcaaaggat catggtcac aaagccaaag ggatggagcc tatagaggtg  
 1981 cctcttgagg aaaatagtga acggactcag attcgccaaa gcagggctctg tgctgacaga  
 2041 gtaagtactt atgattgtgg agaaaaaatt tcaagctggg tgtcaacatt ttttggccgt  
 2101 ccttgtcatt tgatcaaaca aagttcaaac tctcaaagga atgcaaagaa gaaacatgga  
 5 2161 aaagatcaac ttcctgggtac aatggccacc ctttctctgg tgaatgaggc acagtatctg  
 2221 ctgatcaaca catccagtat tttggaactt caccggcaac taaacaccag tgatgagaat  
 2281 ggaaaggagg aattattctc actgaaggat ctcagcttgc gttttcgtgc caatattatt  
 2341 atcaatggaa aaagggcttt tgaagaagag aaatgggatg agatttcaat tggctctttg  
 2401 cgtttccagg ttttgggggc ttgtcacaga tgccagatga tttgcatcga ccagcaaact  
 10 2461 gggcaacgaa accagcatgt tttccaaaaa ctttctgaga gtcgtgaaac aaaggtgaac  
 2521 tttggcatgt acctgatgca tgcattcatt gatattatcct ccccatgttt cctgtctgta  
 2581 ggatctcagg tgctccctgt gttgaaagag aatgtggaag gtcattgattt acctgcatct  
 2641 gagaaacacc aggatgttac ctctctaa  
  
 15 SEQ ID NO:14  
 HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), 2600T>C VARIANT ALLELE  
 1 atggccggcg cggcggcgga gtcagggcg gagctgtgga ccttcgcggg ttcccgggac  
 61 ccgagcgcac cgcggctagc ctacggctac ggcccgggca gcctgcgcga gctgcgggcg  
 121 cgcgagttca gccgcctggc aggaactgtc tatcttgacc atgcaggtgc caccttggtc  
 20 181 tcccagagcc agctcgaaag cttcactagt gatctcatgg aaaacactta tggtaatcct  
 241 cacagccaga acatcagcag caagctcacc catgacactg tggagcaggt gcgctacaga  
 301 atcctggcgc acttccacac caccgcagaa gactacactg tgatcttcac tgccgggagc  
 361 acggctgctc tcaaactggg ggcagaggcc tttccatggg tgtcccaggg cccagagagc  
 421 agtgggagtc gcttctgtta cctcaccgac agccacacct ccgtagtggg tatgcggaac  
 25 481 gtgaccatgg ctataaatgt catatccacc ccggtcaggc cagaggacct gtggtctgca  
 541 gaggaacgta gtgcttcagc cagcaaccca gactgccagc tgccgcatct cttctgctac  
 601 ccagctcaga gtaacttttc tggagtcaga taccacctgt cctggataga agaggtcaag  
 661 tctgggcggt tgcacctgt gagcacgcct ggggaagtgg ttgtgctgct ggatgcagcc  
 721 tcctacgtga gcacctcgcc tttggacctg tcagctcacc aggcgactt tgtccccatc  
 30 781 tccttctata agatcttcgg gtttcttaca ggctgggcg ctctgctggg ccataatcgt  
 841 gcggctcctc tactgaggaa gacctacttt ggaggaggga cagcctctgc gtacctagca  
 901 ggagaagact tctacatccc gaggcagtcg gtagctcaga ggtttgaaga tggcaccatc  
 961 tcattccttg atgttatcgc gctaaaacat ggatttgaca ccctagagcg cctcacaggt  
 1021 ggaatggaga atataaagca gcacaccttc accttggtc agtataccta cgtggccctg  
 35 1081 tcctctctcc agtaccctaa tggagccct gtggtgcgga ttacagcga ttctgagttc  
 1141 agcagccctg aggttcaggg cccaatcatc aattttaatg tgctggatga caaagggaac  
 1201 atcattgggtt actcccaggt ggacaaaatg gccagtcttt acaacatcca cctgcgaact  
 1261 ggctgcttct gtaacactgg ggctgccag aggcacctgg gcataagcaa cgagatggtc  
 1321 aggaagcatt ttcaggctgg tcatgtctgt ggggacaata tggacctcat agatgggcag  
 40 1381 cccacaggat ctgtgaggat ttcatttgga tacatgtcga cgctggatga tgtccaggcc  
 1441 tttcttaggt tcatcataga cactcgctg cactcatcag gggactggcc tgtccctcag

1501 gcccatgctg acaccgggga gactggagcc ccatcagcag acagccaggc tgatgttata  
 1561 cctgctgtca tgggcagacg tagcctctcg cctcaggaag atgccctcac aggctccagg  
 1621 gtttggaaca actcgtctac tgtgaatgct gtgcctgtgg cccacactgt gtgtgatgtc  
 1681 gccagaaccc agccgactcc ttcagagaaa gctgcaggag tcctggaggg ggcccttggg  
 5 1741 ccacatgttg tactaacct ttatctctat ccaatcaa at cctgtgctgc atttgagggtg  
 1801 accaggtggc ctgtaggaaa ccaagggctg ctatatgacc ggagctggat ggttgtgaat  
 1861 cacaatggtg tttgcctgag tcagaagcag gaaccccggc tctgcctgat ccagcccttc  
 1921 atcgacttgc ggcaaaggat catgggtcatc aaagccaaag ggatggagcc tatagagggtg  
 1981 cctcttgagg aaaatagtga acggactcag attcgccaaa gcagggtctg tgctgacaga  
 10 2041 gtaagtactt atgattgtgg agaaaaaatt tcaagctggg tgtcaacatt ttttgccgt  
 2101 ctttgtcatt tgatcaaca aagttcaaac tctcaaagga atgcaaagaa gaaacatgga  
 2161 aaagatcaac ttcttggtac aatggccacc ctttctctgg tgaatgaggc acagtatctg  
 2221 ctgatcaaca catccagtat tttggaactt caccggcaac taaacaccag tgatgagaat  
 2281 ggaaaggagg aattattctc actgaaggat ctgagcttgc gttttcgtgc caatattatt  
 15 2341 atcaatggaa aaagggcttt tgaagaagag aaatgggatg agatttcaat tggctctttg  
 2401 cgtttccagg ttttgggggc ttgtcacaga tgccagatga tttgcatcga ccagcaaact  
 2461 gggcaacgaa accagcatgt tttccaaaaa ctttctgaga gtcgtgaaac aaaggtgaac  
 2521 tttggcatgt acctgatgca tgcattcttg gatttatacct ccccatgttt cctgtctgta  
 2581 ggatctcagg tgctccctgc gttgaaagag aatgtggaag gtcattgattt acctgcatct  
 20 2641 gagaaacacc aggatgttac ctcttaa

SEQ ID NO:15

HOMO SAPIENS MOLYBDENUM COFACTOR SULFURASE (MOCOS), 359G>A VARIANT ALLELE

1 atggccggcg cggcggcgga gtcagggcg gagctgtgga ccttcgcggg ttcccgggac  
 25 61 ccgagcgcac cgcggctagc ctacggctac ggcccgggca gcctgcgcga gctgcggcg  
 121 cgcgagttca gccgcctggc aggaactgtc tatcttgacc atgcaggtgc caccttgttc  
 181 tcccagagcc agctcgaaag cttcactagt gatctcatgg aaaacactta tggtaatcct  
 241 cacagccaga acatcagcag caagctcacc catgacactg tggagcaggc gcgctacaga  
 301 atcctggcgc acttccacac caccgcagaa gactacactg tgatcttcac tgccgggaac  
 30 361 acggctgctc tcaaactggg ggcagaggcc tttccatggg tgtcccaggc cccagagagc  
 421 agtgggagtc gcttctgtta cctcacgcac agccacacct ccgtagtggg tatgcggaac  
 481 gtgaccatgg ctataaatgt catatccacc ccggtcaggc cagaggacct gtggtctgca  
 541 gaggaacgta gtgcttcagc cagcaaccca gactgccagc tgccgcacct cttctgctac  
 601 ccagctcaga gtaacttttc tggagtcaga taccacctgt cctggataga agaggatcaag  
 35 661 tctgggcggg tgcacctgt gagcacgcct ggggaagtggg ttgtgctgct ggatgcagcc  
 721 tcctacgtga gcacctcgcc tttggacctg tcagctcacc aggcgcactt tgtccccatc  
 781 tccttctata agatcttcgg gtttcttaca ggccctggcg ctctgctggg ccataatcgt  
 841 gcggctcttc tactgaggaa gacctacttt ggaggaggga cagcctctgc gtacctagca  
 901 ggagaagact tctacatccc gaggcagtcg gtagctcaga ggtttgaaga tggcaccatc  
 40 961 tcattccttg atgttatcgc gctaaaacat ggatttgaca ccctagagcg cctcacaggc  
 1021 ggaatggaga atataaagca gcacaccttc accttggtc agtataccta cgtggccctg

1081 tcctctctcc agtaccceaa tggagccct gtggtgcgga ttacagcga ttctgagttc  
 1141 agcagccctg aggttcaggg cccaatcacc aattttaatg tgctggatga caaagggaac  
 1201 atcattggtt actcccaggt ggacaaaatg gccagtcttt acaacatcca cctgcgaact  
 1261 ggctgcttct gtaacactgg ggctgcccag aggcacctgg gcataagcaa cgagatggtc  
 5 1321 aggaagcatt ttcaggctgg tcatgtctgt ggggacaata tggacctcat agatgggcag  
 1381 cccacaggat ctgtgaggat ttcatttggg tacatgtcga cgctggatga tgtccaggcc  
 1441 tttcttaggt tcatcataga cactcgctg cactcatcag gggactggcc tgtccctcag  
 1501 gcccatgctg acaccgggga gactggagcc ccatcagcag acagccaggc tgatgttata  
 1561 cctgctgtca tgggcagacg tagcctctcg cctcaggaag atgccctcac aggcctcagg  
 10 1621 gtttggaaca actcgtctac tgtgaatgct gtgcctgtgg cccacactgt gtgtgatgtc  
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SEQ ID NO:16

30 GENBANK ACCESSION NO. NM\_001159

HOMO SAPIENS ALDEHYDE OXIDASE 1 (AOX1), mRNA

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SEQ ID NO:17

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SEQ ID NO:18

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10