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Nucleotide sequence of a human gene for glutathione peroxidase

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The cDNA sequence encoding human glutathione peroxidase have been previously reported (1). Furthermore we isolated its genomic DNA by hybridization with nick labeled cDNA and determined the nucleotide sequence. The sequence of 1733 bp containing a single intron is presented below. Numbering begins at the transcription initiation site of the longest cDNA (1). The deduced amino acid sequence is aligned under the exon DNA sequence. Site of polyadenylation is shown by asterisk and its signal by underline.

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                                        AACCTAGATCCCTCTGCTG -136
TCCCCTGCACTGCCGGTAACATGGCACAGCAGAGCAGGGTTGTTT
GTGCACGGCACCTCCTGCAGCTGCTGCCGTCGCCACCAGCCTC
CTATGCCAAACCCCACATCCTAACTCAGGAACCTCTGAGAAAAAA  -1
CGGAGCCCTCGAGGGGCCCAGCCTTGGAAGGGTAACTGGACCGCT
GCCGCCTGGTTGCCTGGGCCAGACCAGACATGCCTGCTGCTCCTT
CCGGCTTAGGAGGAGCACGCGTCCCGCTCGCGCGCACTCTCCAGC
CTTTTCCTGGCTGAGGAGGGGCCGAGCCTCCGGTAGGGCGGGGGC
CGGATGAGGCGGGACCTCAGCGCCCGGAAAACTGCCTGTGCCACGT
GACCCGCCGCCGGCCAGTTAAAAGGAGCGCCCTGCTGGCCTCCCC
TTACAGTGCTTGTTCGGGGCGCTCCGCTGGCTCCTTGGACAATTG
CGCCATGTGTGCTGCTCGGCTAGCGGCGGCGGCGGCCCAGTCGGT  360
     MetCysAlaAlaArgLeuAlaAlaAlaAlaAlaGlnSerVa
GTATGCCTTCTCGGCGCGCCCGTTGGCCGGCGGGGAGCCTGTGAG  405
lTyrAlaPheSerAlaArgProLeuAlaGlyGlyGluProValSe
CCTGGGCTCCCTGCGGGGCAAGGTACTACTTATCGAGAATGTGGC  450
rLeuGlySerLeuArgGlyLysValLeuLeuIleGluAsnValAl
GTCCCTCTGAGGCACCACGGTCCGGGACTACACCCAGATGAACGA  495
aSerLeuSecGlyThrThrValArgAspTyrThrGlnMetAsnGl
GCTGCAGCGGCGCCTCGGACCCCGGGGCCTGGTGGTGCTCGGCTT  540
uLeuGlnArgArgLeuGlyProArgGlyLeuValValLeuGlyPh
CGCGTGCAACCAGTTTGGGCATCAGGTGCGCCGGGCGGAGCGGGA  585
eProCysAsnGlnPheGlyHisGln
CGGGACGGGGGCGGACGTGCAGTAGTGGCTGGGGGCGCCGGCGGT
GTGGTGGTGGGTGCGTCGGCTCCATGCGCGGAGAGTCTGGCTACT
CTCTCGTTTCCTTTCTGTTGCTCGTAGCTGCTGAAATTCCTCTCC
GCCCTTGGGATTGCGCATGGAGGGAAAAATCCCGGTGACTCATAG
AAAATCTCCCCTCTTTGTGGTTAGAACGTTTCTCTCCTCCTCTTG
ACCCCGGGTTCTAGCTGCCCTTCTCTCCTGTAGGAGAACGCCAAG  855
                                   GluAsnAlaLys
AACGAAGAGATTCTGAATTCCCTCAAGTACGTCCGGCCTGGTGGT  900
AsnGluGluIleLeuAsnSerLeuLysTyrValArgProGlyGly
GGGTTCGAGCCCAACTTCATGCTCTTCGAGAAGTGCGAGGTGAAC  945
GlyPheGluProAsnPheMetLeuPheGluLysCysGluValAsn
GGTGCGGGGGCGCACCCTCTCTTCGCCTTCCTGCGGGAGGCCCTG  990
GlyAlaGlyAlaHisProLeuPheAlaPheLeuArgGluAlaLeu
CCAGCTCCCAGCGACGACGCCACCGCGCTTATGACCGACCCCAAG 1035
ProAlaProSerAspAspAlaThrAlaLeuMetThrAspProLys
CTCATCACCTGGTCTCCGGTGTGTCGCAACGATGTTGCCTGGAAC 1080
LeuIleThrTrpSerProValCysArgAsnAspValAlaTrpAsn
TTTGAGAAGTTCCTGGTGGGCCCTGACGGTGTGCCCCTACGCAGG 1125
PheGluLysPheLeuValGlyProAspGlyValProLeuArgArg
TACAGCCGCCGCTTCCAGACCATTGACATCGAGCCTGACATCGAA 1170
TyrSerArgArgPheGlnThrIleAspIleGluProAspIleGlu
GCCCTGCTGTCTCAAGGGCCCAGCTGTGCCTAGGGCGCCCCTCCT 1215
AlaLeuLeuSerGlnGlyProSerCysAla
ACCCCGGCTGCTTGGCAGTTGCAGTGCTGCTGTCTCGGGGGGGTT
TTCATCTATGAGGGTGTTTCCTCTAAACCTACGAGGGAGGAACAC
CTTGATCTTACAGAAAATACCACCTCGAGATGGGTGCTGGTCCTG
TTGATCCCAGTCTCTGCAGACCAAGGCTAGTTCCCCCACTAATA
AAGTGCCGGGTGTCAGCAGACTGTGTGTATGTCCTGTGTCATTGT
CATTTGGGAATTCTTTTTATTTTCTATTTTTTTTTTTTTTTTGA
CACGTAGTTTTCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
AATGTAGGCTCACTGCAAGCTCCGCCTCCCGGGTTCAGCATTTCT
GCTA                                           1579
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Reference 1.Sukenaga,Y. et al.(1987)Nuc. Acids Res. 15,7178

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