The sequence of an adrenal specific human cDNA, pG2

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We previously reported the isolation of a cDNA clone, pG2, from a human pheochromocytoma, a tumor of mature adrenal chromaffin cells. Expression of the mRNA recognized by pG2 is induced by glucocorticoids. This clone recognizes a mRNA of 1.6 kb in both adult adrenal cortex and adrenal medulla, but is not expressed in neuroblastoma; an embryonal tumor of the adrenal medulla (1). In situ hybridization studies have demonstrated that pG2 expression is developmentally regulated. Expression of pG2 is initially seen in the developing human adrenal medulla at 20 weeks gestation and reaches adult levels by 24 weeks gestation (2). We have now isolated a full length cDNA from a human adrenal cDNA library. The clone contains 1557 bp insert and a poly A tail of 73 bp that corresponds closely in size to the 1.6 kb mRNA recognized by pG2. The nucleotide sequence is not homologous to any previously reported sequences. The predicted protein encoded by pG2 contains 286 amino acids with a predicted molecular weight of approximately 30,600 daltons.

REFERENCES

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-613                                                TCTAAAGGAGGTGGAGAGC
-594 GCACCGCAGCCCGGTGCAGCCCGGTGCAGCCCTGGCTTTCCCCTCGCTGCGGCCCGTGCCCCCTTT
-528 CGCGTCCGCAACCAGAAGCCCAGTGCGGCGCCAGGAGCCGGACCCGCGCCCGCACCGCTCCCGGGA
-462 CCGCGACCCCGGCCGCCCAGAGATGACCGCGACCGAAGCCCTCCTGCGCGTCCTCTTGCTCCTGCT
-396 GGCTTTCGGCCACAGCACCTATATGGGGCTGAATGCTTCCCGGCCTGCAACCCCCAAAATGGATTC
-330 TGCGAGGATGACAATGTTTGCAGGTGCCAGCCTGGCTGGCAGGGTCCCCTTTGTGACCAGTGCGTG
-264 ACCTCTCCCGGCTGCCTTCACGGACTCTGTGGAGAACCCGGGCAGTGCATTTGCACCGACGGCTGG
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 -66 AGAAAAAGGACGGGCCCTGTGTGATCAACGGCTCCCCCTGCCAGCACGGAGGCACCTGCGTGGATG
   1 ATGAGGGCCGGGCCTCCCATGCCTCCTGCCTGTGCCCCCCTGGCTTCTCAGGCAATTTCTGCGAGA
     MetArgAlaGlyProProMetProProAlaCysAlaProLeuAlaSerGlnAlaIleSerAlaArg
  67 TCGTGGCCAACAGCTGCACCCCCAACCCATGCGAGAACGACGGCGTCTGCACTGACATTGGGGGCG
     SerTrpProThrAlaAlaProProThrHisAlaArgThrThrAlaSerAlaLeuThrLeuGlyAla
 133 ACTTCCGCTGCCGGTGCCCAGCCGCTTCATCGACAAGACCTGCAGCCGCCCGGTGACCAACTGCGC
     ThrSerAlaAlaGlyAlaGlnProLeuHisArgGlnAspLeuGlnProProGlyAspGlnLeuArg
 199 CAGCAGCCCGTGCCAGAACGGGGGCACCTGCCTGCAGCACACCCAGGTGAGCTACGAGTGTCTGTG
     GlnGlnProValProGluArgGlyHisLeuProAlaAlaHisProGlyGluLeuArgValSerVal
 265 CAAGCCCGAGTTCACAGGTCTCACCTGTGTCAAGAAGCGCGCGCTGAGCCCCCAGCAGGTCACCCG
     GlnAlaArgValHisArgSerHisLeuCysGlnGluAlaArgAlaGluProProAlaGlyHisPro
 331 TCTGCCCAGCGGCTATGGGCTGGCCTACCGCCTGACCCCTGGGGTGCACGAGCTGCCGGTGCAGCA
     SerAlaGlnArgLeuTrpAlaGlyLeuProProAspProTrpGlyAlaArgAlaAlaGlyAlaAla
 397 GCCGGAGCACCGCATCCTGAAGGTGTCCATGAAAGAGCTCAACAAGAAAACCCCTCTCCTCACCGA
     AlaGlyAlaProHisProGluGlyValHisGluArgAlaGlnGlnGluAsnProSerProHisArg
 463 GGGCCAGGCCATCTGCTTCACCATCCTGGGCGTGCTCACCAGCCTGGTGGTGCTGGGCACTGTGGG
     GlyProGlyHisLeuLeuHisHisProGlyArgAlaHisGlnProGlyGlyAlaGlyHisCysGly
 529 TATCGTCTTCCTCAACAAGTGCGAGACCTGGGTGTCCAACCTGCGCTACAACCACATGCTGCGGAA
     TyrArgLeuProGlnGlnValArgAspLeuGlyValGlnProAlaLeuGlnProHisAlaAlaGlu
 595 GAAGAAGAACCTGCTGCTTCAGTACAACAGCGGGGAGGACCTGGCCGTCAACATCATCTTCCCCGA
     GluGluGluProAlaAlaSerValGlnGlnArgGlyGlyProGlyArgGlnHisHisLeuProArg
 661 GAAGATCGACATGACCACCTTCAGCAAGGAGGCCGGCGACGAGGAGATCTAAGCAGCGTTCCCACA
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 727 GCCCCCTCTAGATTCTTGGAGTTCCGCAGAGCTTACTATACGCGGTCTGTCCTAATCTTTGTGGTG
     AlaProSerArgPheLeuGluPheArgArgAlaTyrTyrThrArgSerValLeuIlePheValVal
 793 TTCGCTATCTCTTGTGTCAAATCTGGTGAACGCTACGCTTACATATATTGTCTTTGTGCTGCTGTG
     PheAlaIleSerCysValLysSerGlyGluArgTyrAlaTyrIleTyrCysLeuCysAlaAlaVal
 859 TGACAAACGCAATGCAAAAACAATCCTCTTTCTCTCTCTTAATGCATGATACAGAATAATAATAAG
     End
 925 AATTTCATCTTTAAATGAGAAAAAAAAAn
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