

Complete nucleotide sequence of the human thyroperoxidase-microsomal antigen cDNA

F.Libert, J.Ruel, M.Ludgate, S.Swillens, N.Alexander, G.Vassart and C.Dinsart

Institut de Recherche Interdisciplinaire, Université Libre de Bruxelles, Campus Erasme, Route de Lennik 808, B-1070 Brussels, Belgium
 Submitted July 28, 1987

Accession no. Y00406

A human thyroid peroxidase cDNA clone of 2 kb was isolated from a λ gt11 thyroid cDNA library using a polyclonal anti-porcine peroxidase antibody (gift of J.Pommier and J.Kaniewski-Paris). Sequence analysis showed 68% homology with the partial porcine thyroid peroxidase sequence (1). Re-screening of the library by hybridization allowed isolation of the complete cDNA from which the following sequence was deduced.

```

0000 ATTACTCAGC AGTCAGATTG CTTGAGAGAA GAAAAAAGA ATGAGAGGCC TCGCTGTGCT GTCTGTCAAG CTGTGTTATG CTTCCACAGA AGCCTCTTCT
0100 CCGTTCATCT CGAGAGGAAA AAGACTCCTT TGGGGAAGC CTGAGAGATC TCGTGTCTCT AGCGTCTTGG AGGAAAGCAA GCGCCTGTGT GACACGBCCA
0200 TGTACGCCAC GATCGAGAGA AAGCTCAGAA AAGAGGAAAT CTTTTCTCCA GCTCAGCTTC TGTCTTTTTT CAAGTCTTCT GAGCGACAAA GCGGAGTGTAT
0300 TCGCCGAGCA CGAGAGATAA TGGAAACATC AATACAAGCG ATGAAAAGAA AAGTCAAGCT GAAACTCAA CAATCACAGC ATCCAGCGAA TCGTTTATCA
0400 GAAGATCTGC TGAAGCATAT TCGAACATG TCTGGATGTC TCGCTTACAT GCTGCCCCCA AAATGCCCCA AACTTTCCTT GCGGACAAA TACAGCCCCA
0500 TCACAGGAGC TTCAAGCAAC AGAGAGCACC CAGGATGGG GCGCTCCAAC AGCGCCCTGG CAGATAGCTT CCGTCCAGTC TATGAGGAGC GCTTCCAGTA
0600 GCGCCGAGGC TGGACCGCG GCTTCTTGTG CAGCGGTTTC CCACTGCCCC GGTGCGCGGA GGTGACAGA CATGTTCATC AAGTTTCAA TGAAGTTGTC
0700 ACAGATGATG ACGCTATTCT TGAAGCTGTG ATGGCATGGG GACAATAGAT GAGCCAGGAC ATGGGTTTCA CAGCCAGAGC CAGCCAGAAA GCTCGCTTGG
0800 GGGAGGGGCG TGACTGGCAG ATGACTTTGT AGAACAAA CCATGTTTTT CCATACAGC TCGGAGGAGA GCGCCGCGCG GCGCGCGGCA CCGCTCTCTT
0900 GCGCTCTTAC CCGTCTTGG CCGCTCGCG CAGCGGGGAC CAAGCGCGCG TCTTTGGAAA CTTGTCCAGC GCGCAAGCCG GCGAGCAGAT GAGCGGTTTG
1000 ACCTGCTTCC TGGAGCGTTC CAGCGTGTAT GCGAGCTGCC GCGCCGTAGA GAGGCAAGTC CGGAACTGGA CAGTGTGCGA AGGGTCTCTC CCGTCCAGG
1100 GCGGCTTGG GAGCTCGCG GCGGCTTAC TCGCTTGTGT GCGGCGAGCG GCGGCTGGGG CTTGTGCGCC GAGCGCGCGC ATCCCGGAGG AGAGCGCGGG
1200 GCGCTCTCTC CTGCGCGAGC AGCGCGCGCG CAGCGAGGTC CCGTCCGTGA GCGCACTGCA CAGCGTGTGG CTGGCGAGGC ACAAGCGCCT GCGCGCGGGC
1300 CTCAGAGGCC TCAATGGGCA CTGAGCGCGG GAGCGCGTGT ACCAGGAGGC GCGCAGGTC GTGGGGCTTC TCGACAGAT CATCAAGCTG AGGATATACA
1400 TCGCCAGGAT CTTGGAGCC GAGGCTTTC AGCAGTACGT GGTCCCTTAT GAGGCTATG ACTCCAGCCG CAAGCCACTT GTGTCCAGG TGTCTCCAC
1500 AGCGCGCTTC CCGTCTGGCC ATGCCAGAT CCACCGCGTG GTGAGGAGCC TGGAGCGGAC CTTCAGGAGC CAGCGCGAGC TCGCGCGGCT GTGCGCTGAC
1600 CAGGCTTCTT TCAAGCCATG GACTTACTCT CTTGGAGGTC GTTTGGAGCC ACTAATAGGA GCGCTCTTGG CAGGAGCAGC CAAACTGACG GTCCAGGATC
1700 AGCTGATGAA CGAGAGCTG ACGGAAAGGC TCTTTGTGCT GTCCAATTC AGCACTTGA ATCTGGGCTC CATCAAGCTC CAGAGCGCGC GCGAGCAGCG
1800 GCTGCGAGGT TACAATGATG GAGGAGGATT TCGCGCGCTG CTTGCGCTGG AGAGCGCGCC TGACTTGAGC ACAGCCATGT CCAGCAGGAG CTTGCGCGAC
1900 AAGATCTCGG ACTTGTACAA GCATCTGAC AACATGATG TCTGCTGGGG AGCCTTAGCT GAAACTTCC TCGCCAGGCG TCGGACAGGG CCGCTTGTG
2000 CTTGCTCAT TGGAGAGCAG ATGAAAGCTC TCGGGATGG TGACTGTTTT TGTGGAGGA ACAAGCACTT CTTCAGGAT GCACAGAGGC GTGAGCTGGA
2100 GAGCAGCTCC CTGTCTGGGG TCACTGTGGA CAACACTGCG CTCACCAAGG TCGCCATGGA TCGCTTCAA GTGCGCAAT TCGCTGAAA CTTTGTAGCT
2200 TGTGACAGCA TCGCTGCAAT GAAGCTGGAG GCGTGGAGGG AAAGCTTTCC TCAAGAGCAC AAGTGTGCTT TCGCAGAGG CATGAGAAAT GCGGACTTTG
2300 TGCACTTGA GAGTCTGGG AGCGCGGTGC TGTGTATTCT CTGCGCGCAC GGTATAGC TCGAGCGCG GAGCAGCTCT ACTTCCAGC AGGAGGATG
2400 GATTTCCAG CTTCCCTCTT GCAAGAGATG GAACGAGTGT GAGAGCGGTC CCGAGCGCGC CTGCGAGCGC TCTCGAGGT GCGAGAACAC CAAGGCGCGC
2500 TCGAGTGTCT TCTGCGGGA CCGCTACGAG TTAGAGAGCG ATGGAGAGAC CTGCGTAGAC TCGCGAGCG TCGCTGGGG GACTTGGATC TCCATGTGCC
2600 TCGCTCTCT GCTGATGGA GCGTTCGAG GTCTCAGCTC GAGCGTGTAT TCGAGTGA CAGGCACTGG CACTAAATCC AACTTGGCCA TCTGGAGAC
2700 AGCGGAGGA ACTCCGAGC TGAAGTGGGG AAGCAGCAC GCGTATGGA CTTCAAGCA GCGCGCGGCA CTTCAAGACT CCGAGAGGA GAGTCTCGGG
2800 ATGAGAGCC GAGTACTCA CAGCGTGGC AGAGCCCTCT GAGGCGAAG TCGCAGGACA CTGCGAGACA CTTTCAATTT CCGAAATCA CCGTACAGCT
2900 CTTTTCAAA CAGAGGAAA TCGAATACA GCAAGAGGAC TGTTTTCCA ACAGCGGTA ATCTAGTACG ATGTGTAGT TACTTCCAG CATGATGAA
3000 TAAATGTTT AGCTGCATT GTCTGCGAAA AAAAAAAAA AA
    
```

REFERENCE

1. Magnusson, R.P., Gestautas, J., Seto, P., Taurog, A., and Rapoport, B.
 FEBS Letters 208, 391-396 (1986)