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Show:

1: AY235570. Gallus gallus mit...[gi:28629839]

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LOCUS AY235570 16784 bp DNA circular VRT 02-MAR-2003
 DEFINITION Gallus gallus mitochondrion, complete genome.
 ACCESSION AY235570
 VERSION AY235570.1 GI:28629839
 KEYWORDS .
 SOURCE mitochondrion Gallus gallus (chicken)
 ORGANISM [Gallus gallus](#)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
 Phasianinae; Gallus.
 REFERENCE 1 (bases 1 to 16784)
 AUTHORS Okimoto,R., Froman,D., Pratchard,L., Locovare,H. and Kirby,J.
 TITLE The complete DNA sequence of a chicken mitochondrial genome
 associated with maternal type that exhibits high sperm mobility
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 16784)
 AUTHORS Okimoto,R., Froman,D., Pratchard,L., Locovare,H. and Kirby,J.
 TITLE Direct Submission
 JOURNAL Submitted (10-FEB-2003) DNA Resource Center, University of
 Arkansas, POSC O-114, Fayetteville, AR 72701, USA
 FEATURES Location/Qualifiers
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 /organism="Gallus gallus"
 /organelle="mitochondrion"
 /mol_type="genomic DNA"
 /db_xref="taxon:9031"
 /tissue_type="whole blood"
 /dev_stage="adult"
 /note="diploid
 breed: New Hampshire Red"
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[tRNA](#) 1233..1302
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[rRNA](#) 1303..2277
 /product="12S ribosomal RNA"
[tRNA](#) 2278..2350
 /product="tRNA-Val"
[rRNA](#) 2351..3971
 /product="16S ribosomal RNA"
[tRNA](#) 3972..4045
 /product="tRNA-Leu"
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[CDS](#) 4055..5029
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 /transl_table=2
 /product="NADH dehydrogenase subunit 1"
 /protein_id="[AAO44985.1](#)"
 /db_xref="GI:28629840"

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IMLSGNYTLSTLAI TQEPIYLIFSAWPLAMMWYISTLAETNRAPFDLTEGESELVSGF
NVEYAAGPFAMFFLAEYANIMLMNTLT TVLFLNPSFLNLPPELFPALATK TLLLSSS
FLWIRASYPRFRYDQLMHLLWKNFLPLTLALCLWHTSMPISYAGLPPI"

tRNA 5030..5101
/product="tRNA-Ile"

tRNA complement(5107..5177)
/product="tRNA-Gln"

tRNA 5178..5245
/product="tRNA-Met"

gene 5246..6286
/gene="ND2"

CDS 5246..6286
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/codon_start=1
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/db_xref="GI:28629841"
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AIKLG LVPFHFVFEVLQSS LITALLLSTLMKLPPI TLLLTSQSLN TLLTLLAIS
STLIGGWMGLNQTQTRKILAFSSISHLGWMIMIISYNPQLTILTFILYTIMTSTVFLS
LAQIKVLKSTMLISWTKTPMLNATVMLTLLSLAGLPPLTGFM PKWLI IQELTKQEMT
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LLPLSPLIITML"

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/product="tRNA-Trp"

tRNA complement(6367..6435)
/product="tRNA-Ala"

tRNA complement(6439..6511)
/product="tRNA-Asn"

tRNA complement(6513..6578)
/product="tRNA-Cys"

tRNA complement(6578..6648)
/product="tRNA-Tyr"

gene 6650..8200
/gene="COX1"

CDS 6650..8200
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/codon_start=1
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/product="cytochrome c oxidase subunit I"
/protein_id="AAO44987.1"
/db_xref="GI:28629842"
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GAINFITTIINMKPPALSQYQTPLFVWSVLITAILLLL SLPVLAAGITMLLTDRLNLT
TFFDPAGGGDPILYQHLFWFFGHPEVYILILPGFGMISHVVAYAGKKEPFGYMGMVW
AMLSIGFLGFIVWAHHMFTVGMDDVDTRAYFTSATMIIAIP TGIKVFWSLWATLHGGTIK
WDP PMLWALGFIFLFTIGGLTGIVLANSSLDIALHDTYVVAHFYVLSMGAVFAILA
GFTHWFPLFTGFTLHPSWTKAHFGVMFTGVNLTFFPQHFLGLAGMPRRYS DYPDAYTL
WNTLSSIGSLISMTAVIMLMFIVWEALSARKKVLQPELTATNIEWIHGCPPPYHTFEE
PAFVQVQE"

tRNA complement(8192..8266)
/product="tRNA-Ser"
/note="codons recognized: UCN"

tRNA 8269..8337
/product="tRNA-Asp"

gene 8339..9022
/gene="COX2"

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[CDS](#) 8339..9022
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 /protein_id="AAO44988.1"
 /db_xref="GI:28629843"
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 TLMEKLSNNTVDAQEVELIWTILPAIVLVLLALPSLQILYMMDEIDEPDLTLKAIGHQ
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 SWAVPALGVKTDALPGRLNQTSFITTRPGVFYGCSEICGANHSYMPIVVESTPLKHF
 EAWSSLLSS"

[tRNA](#) 9024..9091
 /product="tRNA-Lys"

[gene](#) 9093..9257
 /gene="ATP8"

[CDS](#) 9093..9257
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 /codon_start=1
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 /protein_id="AAO44989.1"
 /db_xref="GI:28629844"
 /translation="MPQLNPNPWFSIMLLTWFTFSLLIQPKLLSFLLTNNPANKITTT
 KPTPWTWPWT"

[gene](#) 9248..9931
 /gene="ATP6"

[CDS](#) 9248..9931
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 /codon_start=1
 /transl_table=2
 /product="ATP synthase F0 subunit 6"
 /protein_id="AAO44990.1"
 /db_xref="GI:28629845"
 /translation="MNLSFFDQFSSPCLLGIPLIILPSLLLPALLLPSPGNRWINNRLS
 TIQLWFTHLITKQLMTPLNKAGHKWALLLTSILMLLSINLLGLLPYTFTPTTQLSMN
 MALALPLWLATLLTGLRNQPSASLGHLLPEGTPPTPLIPALIMIETTSLLIRPLALGVR
 LTANLTAGHLLIQLISTATIALLPMMPSISALTALILFLLTILEVAVAMIQAYVFVLL
 LSLYLQENI"

[gene](#) 9931..10717
 /gene="COX3"

[CDS](#) 9931..10717
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 /note="TAA stop codon is completed by the addition of 3' A
 residues to the mRNA"
 /codon_start=1
 /transl_except=(pos:10717,aa:TERM)
 /transl_table=2
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 /protein_id="AAO44991.1"
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 /translation="MAHQAHSYHMVDPSWPPIFGAAAALLTTSGLIMWFHYSSTLLLT
 MGLLSMLLVMLQWWRDVVRESETFQGHHTPTVQKGLRYGMILFITSEAFFLGFVWAF
 HSSLAPTELGQWPPTGVKPLNPLEVPLLNNTAILLASGVTVTWAHHSITEGNRKQAI
 HALTLTILLGFYFTALQAMEYHEASFISIADSVYGSTFFVATGFHGLHVIIGSSFLTVC
 LLRLIKFHFTPNHHFGFEAAAWYWHFVDIIWLFLYMSMYWGWGSC"

[tRNA](#) 10715..10783
 /product="tRNA-Gly"

[misc_feature](#) 10784..11135
 /note="similar to NADH dehydrogenase subunit 3"

[tRNA](#) 11137..11204
 /product="tRNA-Arg"

[gene](#) 11205..11501
 /gene="ND4L"

[CDS](#) 11205..11501
 /gene="ND4L"
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 /product="NADH dehydrogenase subunit 4L"
 /protein_id="AAO44992.1"
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 SIWPVENQTPSFALVPILMLAFSACEAGTGLAMLVASARTHGSDHLHNLNLLQC"

[gene](#) 11495..12874
 /gene="ND4"

[CDS](#) 11495..12872
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 /note="TAA stop codon is completed by the addition of 3' A
 residues to the mRNA"
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 /transl_except=(pos:12872,aa:TERM)
 /transl_table=2
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 SYYPKTLTLWTGMDQISTPLLVLSCWFLPLMIMASQGHQLQHEPHKRKRMFISTLI
 IIPFFIILAFSATELMLFYISFEATLIPTLILITRWGNQPERLSAGIYLLFYTLISSLPL
 LVSILYLHTNTGTLHLPIIKLTHPNLPASWTSLLSSLALLMAFMVKAPLYGLHLWLPK
 AHVEAPIAGSMLLAALLLKLGGYGIMRVTLLEMPVSNFLHYPFLLTALWGALMTSSIC
 LRQTDLKSLIAYSSVSHMGLVIAASMIQTQWSFGAMILMISHGLTSSLLFCLANTNY
 ERTHSRILILTRGLQPLPLMSVWVLLANLTNMLPPTTNLMAELTIMVALFNWSSPT
 IILTGTATLLTASYTLYMLLSTQRGTLPSHITTTTPNSNTREHLLMTLHIIPMLTLIK
 PELISGTPL"

[tRNA](#) 12873..12941
 /product="tRNA-His"

[tRNA](#) 12943..13007
 /product="tRNA-Ser"
 /note="codons recognized: AGY"

[tRNA](#) 13009..13079
 /product="tRNA-Leu"
 /note="codons recognized: CUN"

[gene](#) 13080..14897
 /gene="ND5"

[CDS](#) 13080..14897
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 /product="NADH dehydrogenase subunit 5"
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 /db_xref="GI:28629849"
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 EFATWYMASEPFITKFFTYLLTFLIAMLTLLTIANNMFLFVGVGEGVIMSFLFIGWWQ
 GRAEANTAALQAMIYNRIGDIGLILSMAWLASSLNTWEIQQITHPNQTPPLGLLIL
 AATGKSAQFGLHPWLPAAAMEGPTPVSALLHSSSTMVAGIFLLIRTHPFLSSNKALT
 TCLCLGALSTLFAATCALTQNDIKKIIAFSTSSQLGLMMVTIGLDLPQLAFLHISTHAF
 FKAMFLCGLIIHSLNGEQDIRKMGCLQKTLPMTTSCLTIGNLALMGTPFLAGFYK
 DLIENLNTSYINTWALSLLTLLATSEFTATYSLRMTLLVQTGHTRTPAITPINENTPPA
 ILPIMRLALGSIMAGLLISSLILPPKTPPMTMPTITKTAIIVTTLGIILALELSSLS
 YSLTPPKHNPLMNFSSSLGYFNPLTHRISPSILLHTGQKIASHLIDMAWYKKMGPEGL
 ANLHLTMTKISTTLHTGLIKSYLGSFALTILTILLIQK"

[gene](#) 14902..16044
 /gene="CYTB"

[CDS](#) 14902..16044
 /gene="CYTB"
 /codon_start=1
 /transl_table=2

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/product="cytochrome b"
/protein_id="AAO44995.1"
/db_xref="GI:28629850"
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LVEWAWGGFSVDNPTLTRFFALHFLLPFIAIAGITIIHLTFLHESGSNNPLGISSDSK
IPFHPYYSFKDILGLTLMLT PFLTALFSPNLLGDPENFTPANPLVTPPHIKPEWYFL
FAYAILRSIPNKLGGVLAALAASVLILFLIPFLHKSQRMTFRPLSQTLFWLLVANLL
ILTWIGSQPVEHPFIIIGQMASLSYFTILLILFPTIGTLENKMLNY"

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[tRNA](#)

16048..16116

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/product="tRNA-Thr"
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[tRNA](#)

complement (16117..16186)

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/product="tRNA-Pro"
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[gene](#)

complement (16193..16714)

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/gene="ND6"
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[CDS](#)

complement (16193..16714)

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/transl_table=2
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/product="NADH dehydrogenase subunit 6"
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/db_xref="GI:28629851"
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VLGGLVDFWKVGVVTVDGGGVSFARLDFSGVAVFYSCGVGLFLVAGWGLLLALFVVLE
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LVRGLSRGAIRAV"

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[tRNA](#)

complement (16717..16784)

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/product="tRNA-Glu"
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BASE COUNT 5076 a 5458 c 2269 g 3981 t

ORIGIN

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121 atatactata tatgtactaa acccattata tgtatacggg cattaatcta tattccacat
181 ttctcccatt gtccattcta tgcattgatcc aggacacact cattcaccct ccccatagac
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1081 acattattgt ttattctatc attattagag aaactccact accaaaacca tcattaaaac
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1561 tcatacaaga aaccctaatc aatagctacc cggcgtaaag agtggccaca tgttatctgc
1621 accagctaag attaaaatgc aaccaagctg tcataagcct aagatccacc taaaccacac
1681 ccaaatccat cttagcctca acgattaatt ttaaccacg aaagctagga cccaaactgg
1741 gattagatac cccactatgc cttagccctaa atctagatac ctcccatcac acatgtatcc
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1861 acctagagga gcctgttcta taatcgataa tccacgattc acccaaccac cccttgccag
1921 cacagcctac ataccgcccgt cgccagccca cctctaataa aagaacaaca gtgagctcaa

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2101 gcagtaaagt gagatcatac ccctaagct cactttaaga cggctctgag gcacgtacat
2161 accgcccgtc accctcttca caagccatca acatcaataa atatatactt cccctcccg
2221 ctaaagacga ggcaagtcgt aacaaggtaa gtgtaccgga aggtgcactt agactacca
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2461 ccccggcgca atagaggcta actgtaccgc aagggaaaga tgaaatagca atgaaaacca
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2641 ctaaaatttg agcgaacccg tctctgttgc aaaagagtgg gatgacttgc cagtagaggt
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2761 taaccacacc cctaaagaca cccaccttgg tcaaccttga gaacgttggg gtaagagca
2821 attcgatggg ggtacagctc catcgaaaaa gaacacaacc tcctccagcg gataataatc
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