Nucleotide sequence of the mouse interferon-β gene

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The chromosomal gene for mouse interferon-β (IFN-β) was isolated from genomic library prepared from MPC11 plasmacytoma cells using mouse IFN-β cDNA (1) as the probe. The gene lacks intron. The nucleotide sequence of IFN-β gene and flanking region is shown. The consensus TATA box, translation initiator ATG, translation terminator TGA and poly A addition signal AATAAA are framed. Direction and the initiation site for transcription (arrow) was determined by S1 mapping using RNA from Newcastle disease virus-induced mouse L cells. It is worth noting that the 5′ flanking sequence corresponding to the regulatory region of the gene (2) is highly homologous to that of human IFN-β gene (97 % homology in the region between 107 and 49 nucleotide residues upstream from the transcription initiation site).

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        10         20         30         40         50         60         70         80         90        100
CAGCTGTGCC ATCCTTTCAG GAGTAGCAGC TACTCTGCCT GGCTTTTCAG TGGACACTTT GGCTGTTTGA GAGTTCTTTT ATCTTCAGGG CTGTCTCCTT

       110        120        130        140        150        160        170        180        190        200
TCTGTTCTTC TCTCCTGGAT ATTTCTCTTC CTTTGCTCCA GCAATTGGTG AAACTGTACA AGATTTTATA AATCCTTAGT TTGTATATAT TTTAACCCAG

       210        220        230        240        250        260        270        280        290        300
TACATAGCAT ATAAAATAGC CAGGAGCTTG AATAAAATGA ATATTAGAAG CTGTTAGAAT AAGAGAAAAT GACAGAGGAA AACTGAAAGG GAGAACTGAA

       310        320        330        340        350        360        370        380        390        400
AGTGGGAAAT TCCTCTGAGG CAGAAAGGAC CATCCCTATA AAATAGCACA GGCCATGAAG GAAGATCATT CTCACTGCAG CCTTTGACAG CCTTTGCCTC

       410        420        430        440        450        460        470        480        490        500
ATCTTGCAGG TAGCAGCCGA CACCAGCCTG GCTTCCATCA TGAACAACAG GTGGATCCTC CACGCTGCGT TCCTGCTGTG CTTCTCCACC ACAGCCCTCT

       510        520        530        540        550        560        570        580        590        600
CCATCAACTA TAAGCAGCTC CAGCTCCAAG AAAGGACGAA CATTCGGAAA TGTCAGGAGC TCCTGGAGCA GCTGAATGGA AAGATCAACC TCACCTACAG

       610        620        630        640        650        660        670        680        690        700
GGCGGACTTC AAGATCCCTA TGGAGATGAC GGAGAAGATG CAGAAGAGTT ACACTGCCTT TGCCATCCAA GAGATGCTCC AGAATGTCTT TCTTGTCTTC

       710        720        730        740        750        760        770        780        790        800
AGAAACAATT TCTCCAGCAC TGGGTGGAAT GAGACTATTG TTGTACGTCT CCTGGATGAA CTCCACCAGC AGACAGTGTT TCTGAAGACA GTACTAGAGG

       810        820        830        840        850        860        870        880        890        900
AAAAGCAAGA GGAAAGATTG ACGTGGGAGA TGTCCTCAAC TGCTCTCCAC TTGAAGAGCT ATTACTGGAG GGTGCAAAGG TACCTTAAAC TCATGAAGTA

       910        920        930        940        950        960        970        980        990       1000
CAACAGCTAC GCCTGGATGG TGGTCCGAGC AGAGATCTTC AGGAACTTTC TCATCATTCG AAGACTTACC AGAAACTTCC AAAACTGAAG ACCTGTCAGT

      1010       1020       1030       1040       1050       1060       1070       1080       1090       1100
TGATGCCTCA GAATGAGTGG TGGTTGCAGG CAACCTTTAA GCATCAGAGG CGGACTCTGG GACTGGTAGT GAATCTACTG CATTTGAAAG GTCAAAGGAA

      1110       1120       1130       1140       1150       1160       1170       1180       1190       1200
AACAGAGTTT TTATTAATTT ATAATTTAAA TTATTTTCTA CTTTTTATTT AAACTTTTTA ACCTCAGAAA ATAAAATATT TATAATACAA AAAGTCAACA

      1210       1220       1230       1240       1250       1260       1270       1280       1290       1300
CGACAATTTA ATTTCTACTG GTTTCTATAG CCATCTATGT TAATAATTGC TGGACACTTC TTATAAAGGG TTCTTTGTAA AGTACTCCTT TAAAAAAAGT

      1310       1320       1330       1340
AGTATAGTTT CTGGCTCCTG CCTTGAGGAA CTTAAAATCA A
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