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Nagata et al.

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[54] **DNA ENCODING GRANULOCYTE COLONY-STIMULATING FACTOR RECEPTOR AND PROTEIN THEREOF**

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[51] **Int. Cl.⁶** **C12N 15/12; C07K 14/705; C07K 14/715**

[52] **U.S. Cl.** **530/350; 536/23.1; 536/23.5; 435/69.1; 530/351**

[58] **Field of Search** **435/69.1, 240.2, 435/252.3, 320.1; 530/350, 351; 536/23.5, 23.52**

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Primary Examiner—Marianne P. Allen

[57] **ABSTRACT**

A murine G-CSF receptor cDNA was cloned from a cDNA library prepared from mouse myeloid leukemia cells and the structure analyzed. A human G-CSF receptor cDNA was then cloned from cDNA libraries constructed from human placenta cells or human histocytic lymphoma cells using the murine G-CSF receptor cDNA as a probe, the structure analyzed and expressed in a host cell transformed with it. The stable production of human G-CSF receptor can be accomplished by transforming a host cell with the cloned G-CSF receptor cDNA and making the transformant express the G-CSF receptor.

5 Claims, 21 Drawing Sheets

2450 GTC CTC TAT GGT CAG GTG CTT GAG AGC CCC ACC ACC CCN GGA GTA ATG CAG TAC ATT CGC TCT GAC TCC ACT 2500
 Val Leu Tyr Gly Gly Gln Gln Val Leu Ser Ser Ser Thr Thr Ser Asp Asp Thr Thr Ser Thr Thr Gln Gln Gln Gly
 CCC ACC CCT AGC CCT AAA TCT TAT GAA AAC ATC TGG TTC CAT TCA AGA CCC CAG ACC TTT GTG CCC CAA CCT 2600
 Pro Thr Pro Ser Pro Pro Phe Tyr Ser Tyr Glu Asn Ile Trp Phe His Ser Ser Arg Pro Gln Pro Gln Pro Gln Pro Gln Asp
 760 GAC TGT GTC TTT GGG CCT CCA TTT GAT TTT CAG GGG CTC CAG GTC CAT GGA GTT GAA GAA CAA GAA GGT 2700
 Asp Cys Val Phe Phe Pro Pro Phe Asp Phe Phe Pro Leu Phe Phe Gln Gly Val His Gly Val Gln Gln Gln Gln Gln Phe End
 GGGTCCTGTATCTGAAGACCCCTGCCCTATTCAGAGAGAGAGAGCGCCCTGGCTGAATCTACTGGCCCTGAGAGAAGAGCCGAGTGTCTCTCTGCGCCCTAGCAC
 2800
 CTCTCCCTACTCTGAGCTTCAGGCTATACCCCTGAGGTACCCCACTCTCACACTTAAGTTCAGATAGATACTGCTTACAGCCCAATGGTCACCAITTCGTTTCATATAATTTCA
 2900
 GTCCATTTGAACCTGATTTGAGTTGGGCTGGTATTTTCAGAAAATTCGGCTGCATCTGGTACATGCCTAGCATCCCAACATCTGGGAGGAAGATGCAGCAAGATTGCCAA
 3000
 GTTCCAGGCCAGCTAGCCTACATAGATCCCAATCTCAAAAATTAATGCTGGTGGTGGTCAATCCCTTTAATCCAGCACTCGGGAGGCAGAGGCAGTTTCTGAG
 3100
 TTCCAGGCCAGCTGCTACAAAAGTGAGTTCCAGGACGCCAGACTATACAGAAACCCTGTCTTCAAAAAAATAAATTAAGCAAAAAGCTGAATAAATAAGTTTTTTTTTATGAC
 3200

FIG. 1(c)

FIG. 2A

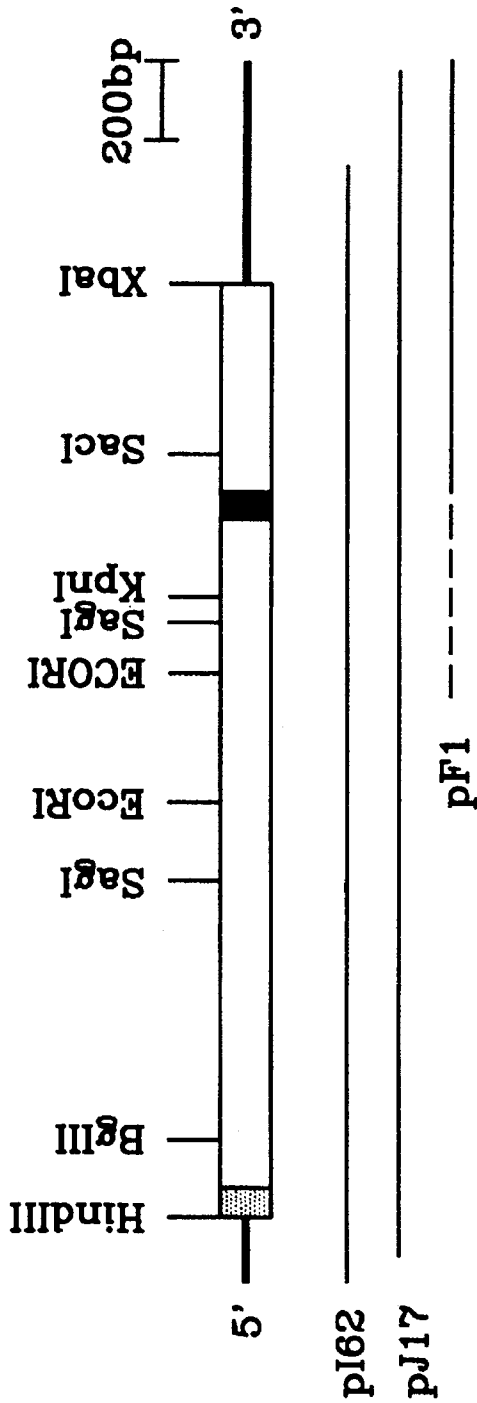
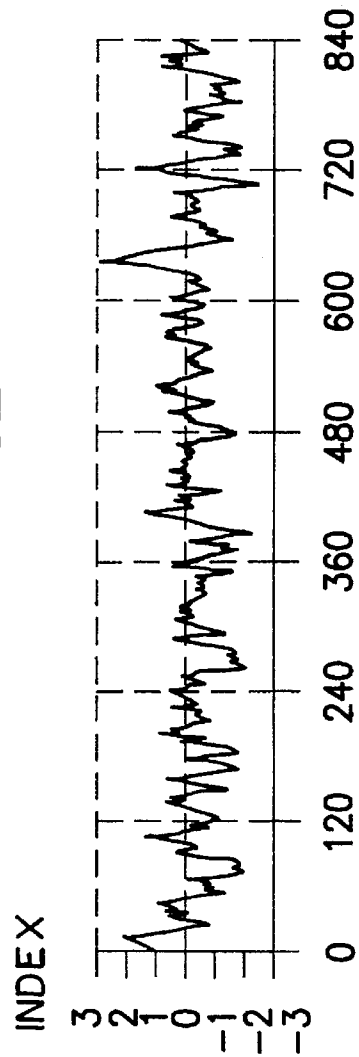


FIG. 2B



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