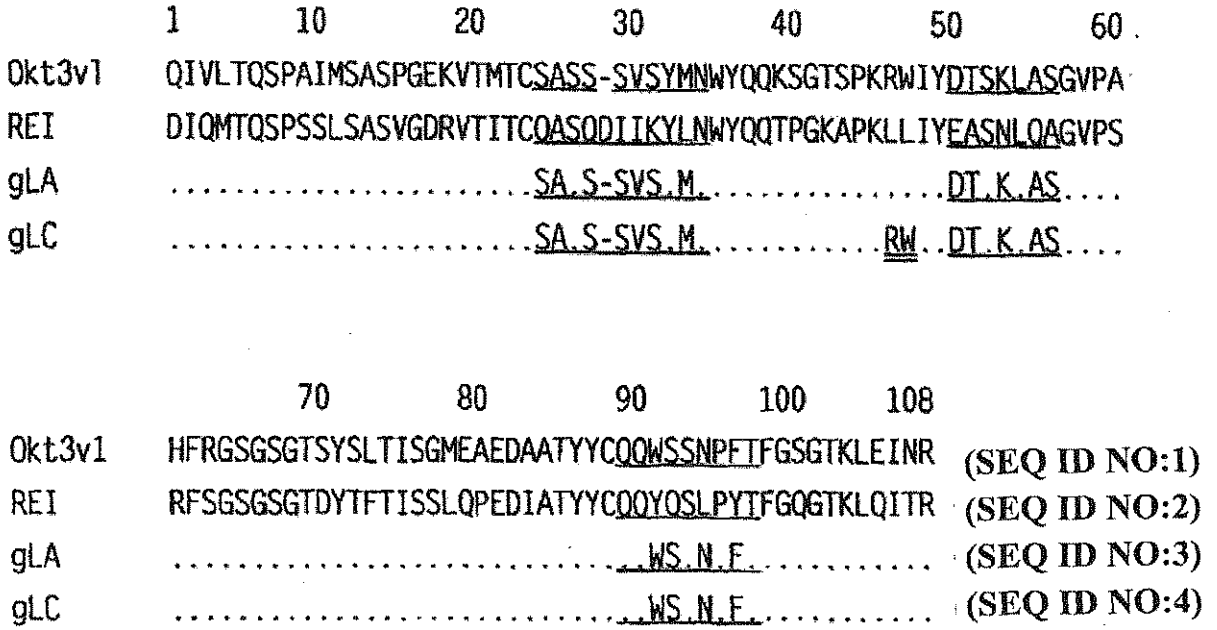

1 10 20 30 40 50 60
Okt3v1 QIVLTQSPAIMSASPGEKVTMTCSASS-SVSYMNWYQQKSGTSPKRWIYDTSKLASGVPA
REI DIQMTQSPSSLSASVGDRVTITCQASQDIIKYLNWYQQTPGKAPKLLIYEASNLQAGVPS
gLA .....SA.S-SVS.M.....DT.K.AS....
gLC .....SA.S-SVS.M.....RW..DT.K.AS....
70 80 90 100 108
Okt3v1 HFRGSGSGTSYSLTISGMEAEDAATYYCQQWSSNPFTFGSGTKLEINR (SEQ ID NO:1)
REI RFSGSGSGTDYTFTISSLQPEDIATYYCQQYQSLPYTFGQGTKLQITR (SEQ ID NO:2)
gLA .....WS.N.F..... (SEQ ID NO:3)
gLC .....WS.N.F..... (SEQ ID NO:4)

FIG. 1A

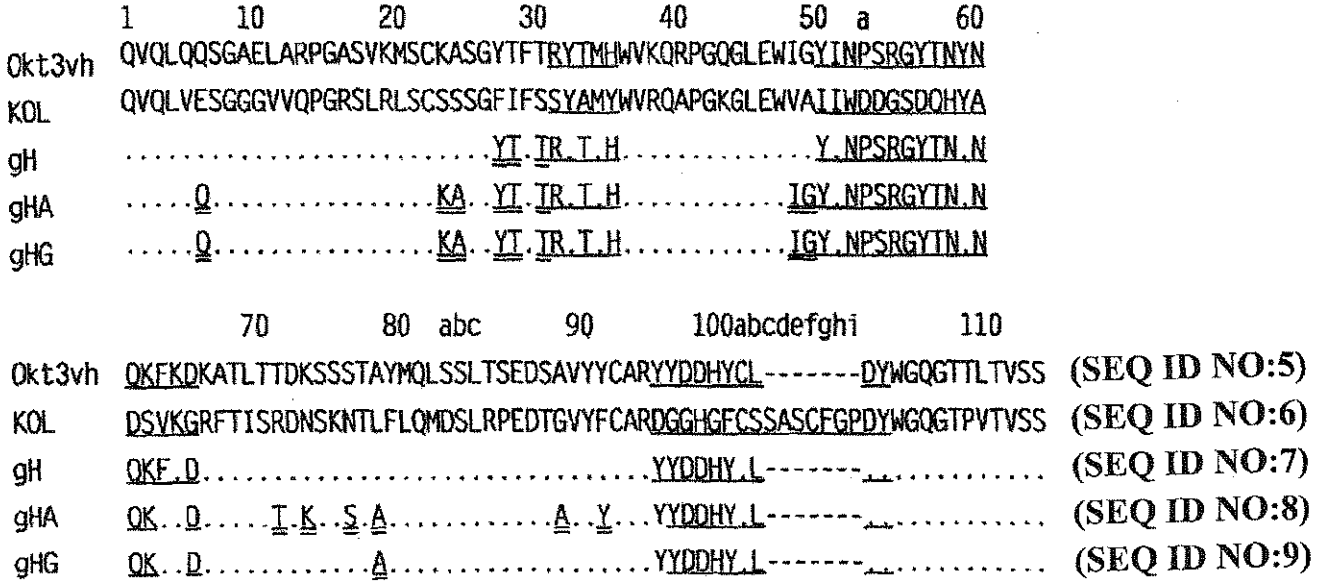

1 10 20 30 40 50 a 60
Okt3vh QVQLQQSGAELARPGASVKMSCKASGYTFTRYTMHWVKQRPGQGLEWIGYINPSRGYTNYN
KOL QVQLVESGGGVVQPGRSLRLSCSSSGFIFSSYAMYWVRQAPGKGLEWVAIIWDDGSDQHYA
gH .....YT.IR.T.H.....Y.NPSRGYTN.N
gHA .....Q.....KA..YT.IR.T.H.....IGY.NPSRGYTN.N
gHG .....Q.....KA..YT.IR.T.H.....IGY.NPSRGYTN.N
70 80 abc 90 100abcdefghi 110
Okt3vh QKFKDKATLTTDKSSSTAYMQLSSLTSEDSAVYYCARYYDDHYCL-------DYWGQGTTLTVSS (SEQ ID NO:5)
KOL DSVKGRFTISRDNSKNTLFLQMDSLRPEDTGVYFCARDGGHGFCSSASCFGPDYWGQGTPVTVSS (SEQ ID NO:6)
gH QKF.D.....YYDDHY.L-------.....
gHA QK..D....T.K..S.A.....A..Y...YYDDHY.L-------.....
gHG QK..D.....A.....YYDDHY.L-------.....

FIG. 1B

Nucleotide Sequence of OKT3γ1 Light Chain

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCGACATCCA
GATGACCCAGTCTCCTTCTTCTCTGTCTGCTTCTGTCGGAGACAGAGTCACAATCACATGTTCTG
CTTCTAGCTCTGTCTCTTACATGAACTGGTACCAGCAGACACCTGGAAAGGCTCCTAAGCGGTG
GATCTACGACACATCTAAGCTCGCTTCTGGAGTCCCTTCTAGATTCTCTGGTTCTGGCTCTGGAA
CAGACTACACATTCACAATCTCTTCTCTCCAACCTGAGGACATCGCTACATACTACTGCCAACAG
TGGTCTAGCAATCCTTTCACATTCGGACAGGGAACAAAGCTGCAGATCACAAGAACTGTGGCGG
CGCCGTCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTCTGTTGTG
TGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTCC
AATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGACAGCACCTACAGCCTCA
GCAGCACCCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTCAC
CCATCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG

FIG. 2A

Amino-Acid Sequence of OKT3γ1 Light Chain

MGWSCIILFLVATATGVHSDIQMTQSPSSLSASVGDRVTITCSASSSVSYMNWYQQTP
GKAPKRWIYDTSKLASGVPSRFSGSGSGTDYTFTISSLQPEDIATYYCQQWSSNPFTF
GQGTKLQITRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQ
SGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
EC

FIG. 2B

Nucleotide Sequence of OKT3γ1 (ala-ala) Heavy Chain

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCAGGTTCA
GCTGGTGCAGTCTGGAGGAGGAGTCGTCCAGCCTGGAAGGTCCCTGAGACTGTCTTGTAAGGC
TTCTGGATACACCTTCACTAGATACACAATGCACTGGGTCAGACAGGCTCCTGGAAAGGGACTC
GAGTGGATTGGATACATTAATCCTAGCAGAGGTTATACTAACTACAATCAGAAGGTGAAGGACAG
ATTCACAATTTCTAGAGACAATTCTAAGAATACAGCCTTCCTGCAGATGGACTCACTCAGACCTGA
GGATACCGGAGTCTATTTTTGTGCTAGATATTACGATGACCACTACTGTCTGGACTACTGGGGCC
AAGGTACCCCGGTCACCGTGAGCTCAGCTTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCAC
CCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCC
CCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGG
CTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTT
GGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAA
GTTGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAGGCCGCGG
GAGGACCATCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCC
TGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTA
CGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAC
GTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAA
GTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGG
CAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAG
GTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGC
AATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTC
TTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCT
CCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAA
ATGA

FIG. 2C

Amino-Acid Sequence of OKT3γ1 (ala-ala) Heavy Chain

MGWSCIILFLVATATGVHSQVQLVQSGGGVVQPGRSLRLSCKASGYTFTRYTMHWV
RQAPGKGLEWIGYINPSRGYTNYNQKVKDRFTISRDNSKNTAFLQMDSLRPEDTGVY
FCARYYDDHYCLDYWGQGTPVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKD
YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKP
SNTKVDKKVEPKSCDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVV
DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKE
YKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD
IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEAL
HNHYTQKSLSLSPGK

FIG. 2D

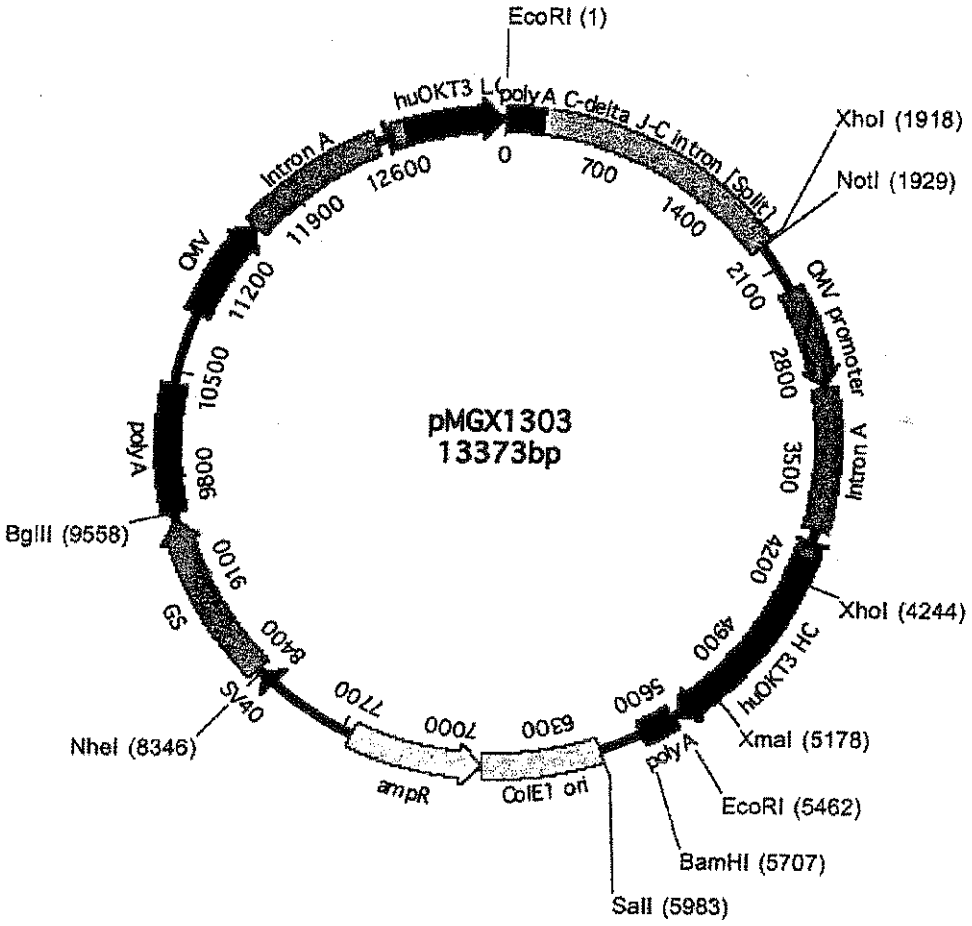

EcoRI (1)
huOKT3 LC
polyA
C-delta
J-C intron
[split]
XhoI (1918)
NotI (1929)
CMV promoter
V intron
huOKT3 HC
XmaI (5178)
EcoRI (5462)
BamHI (5707)
SalI (5983)
ColE1 ori
ampR
SV40
NheI (8346)
GS
polyA
BglII (9558)
CMV
Intron A
pMGX1303
13373bp
0
700
1400
2100
2800
3500
4200
4900
5600
6300
7000
7700
8400
9100
9800
10500
11200
11900
12600

FIG. 4