

FIG.1

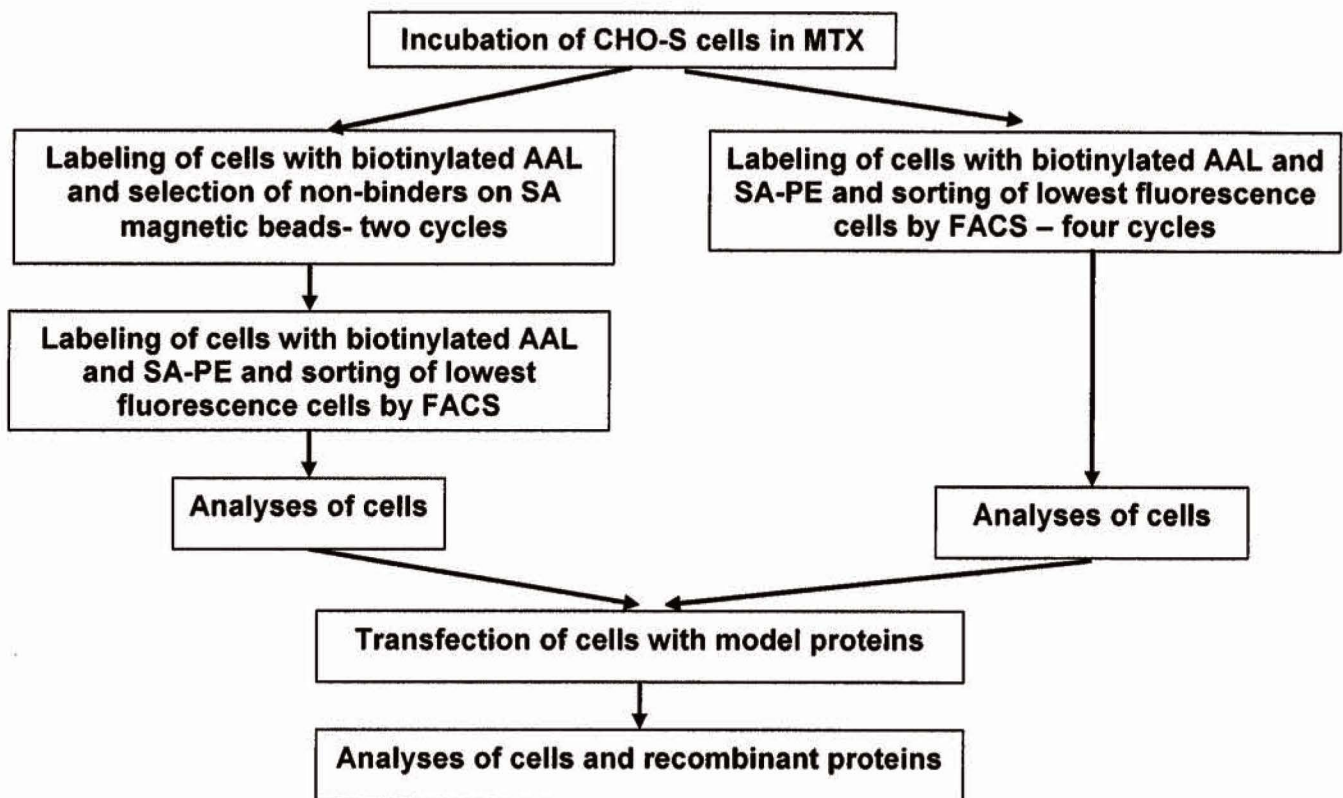


FIG.2

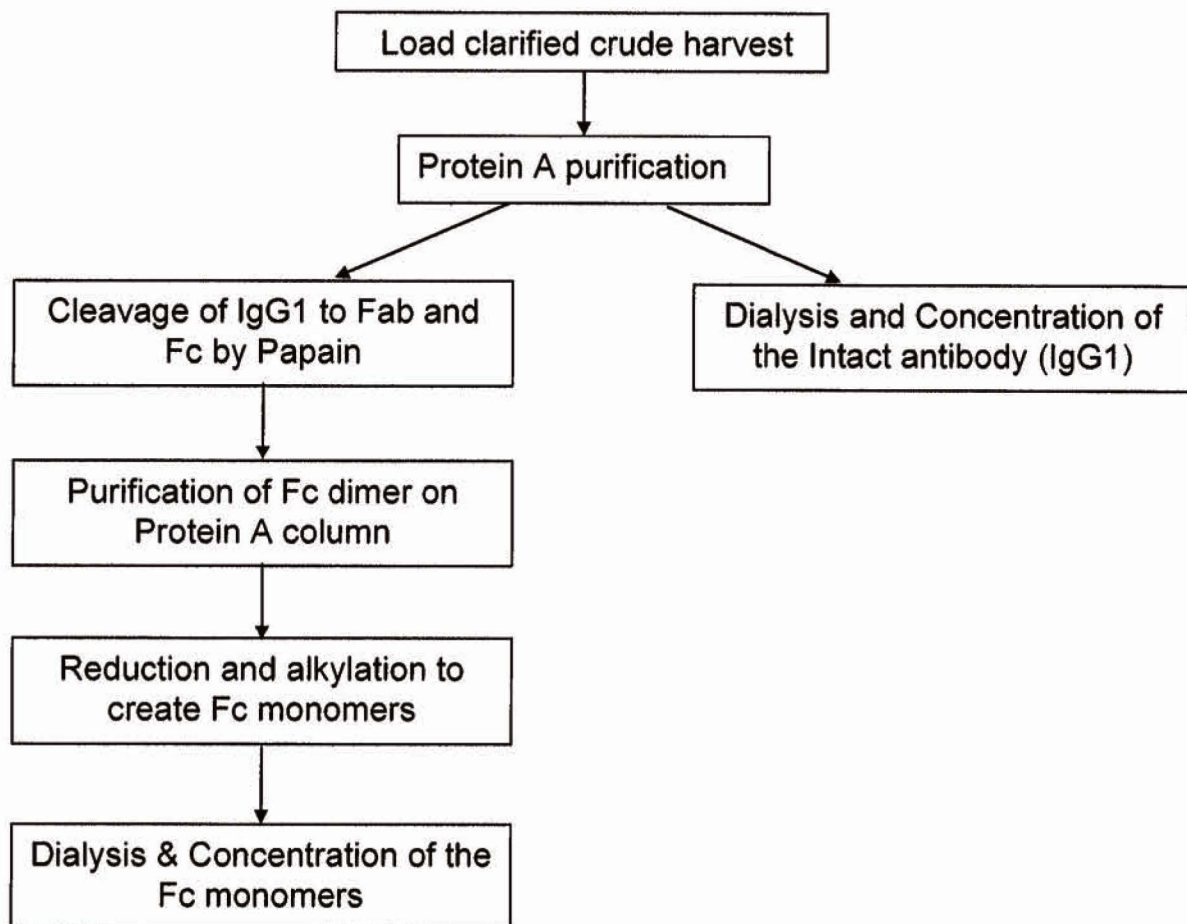


FIG. 3

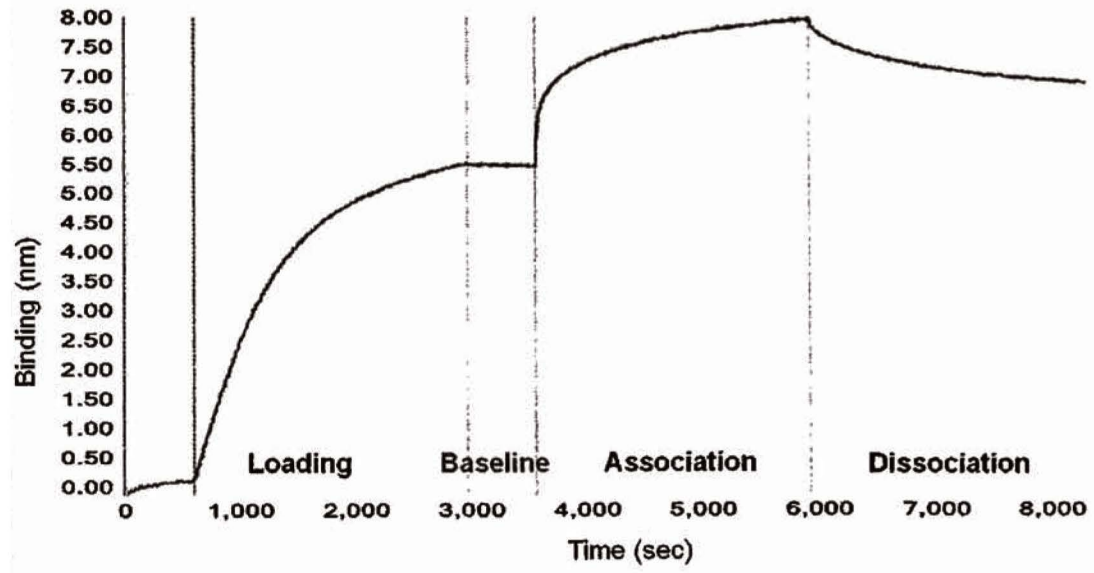


FIG.4

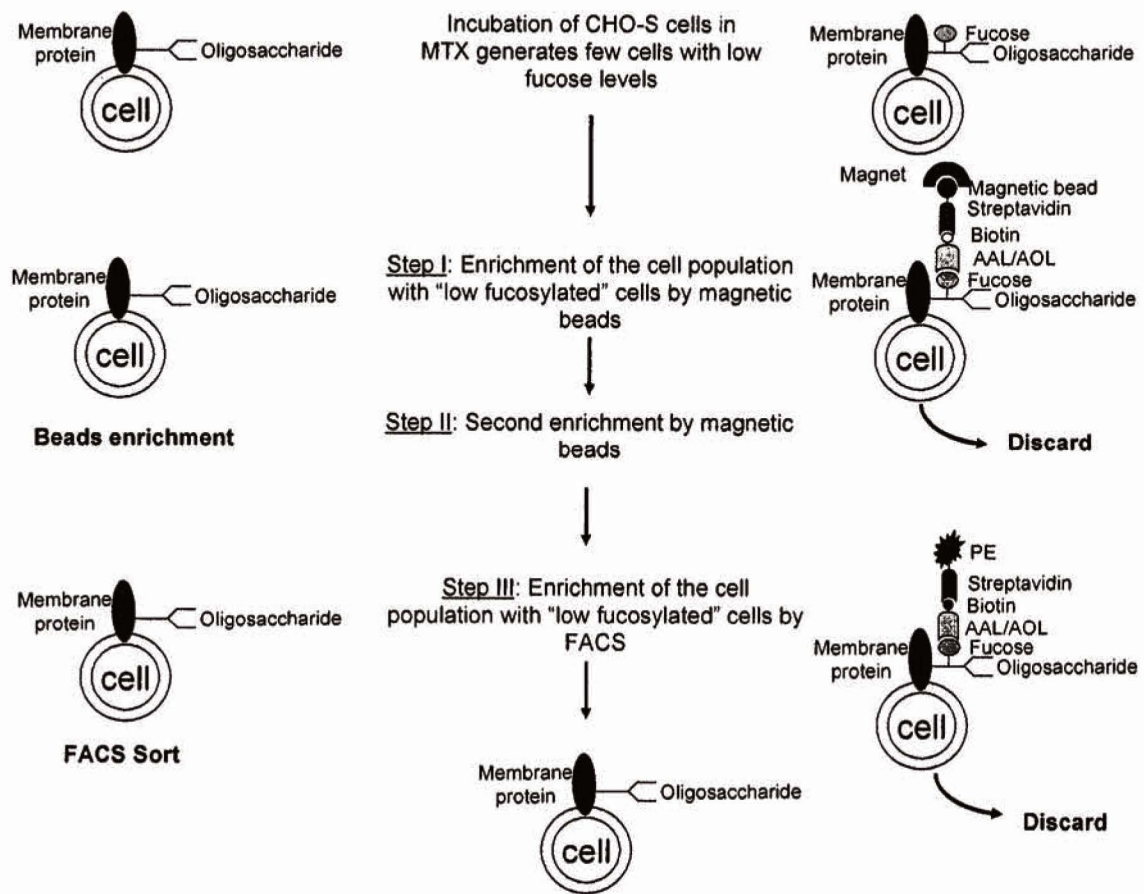


FIG. 5

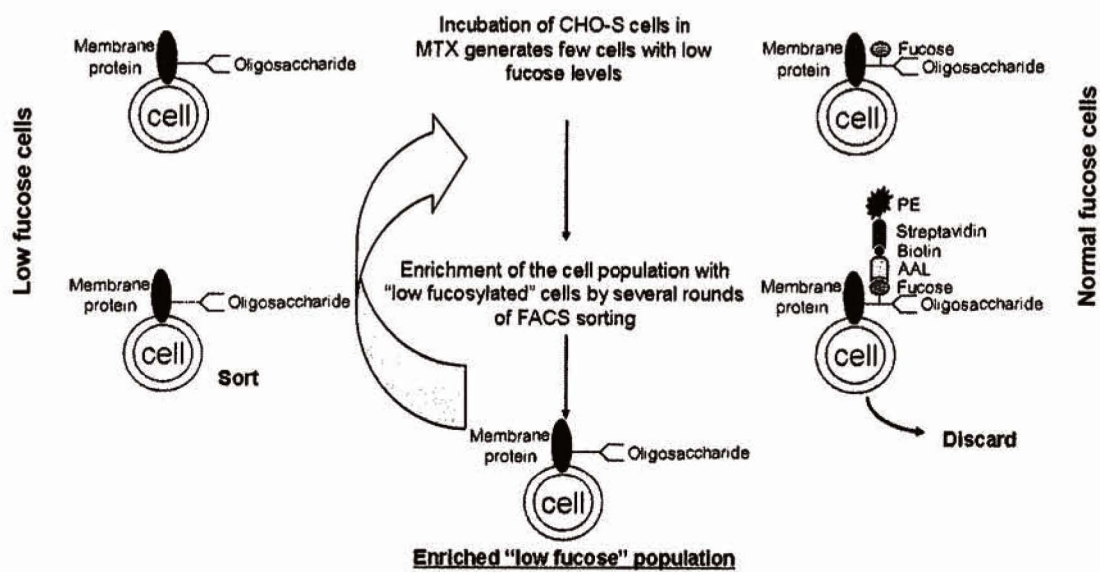


FIG. 6

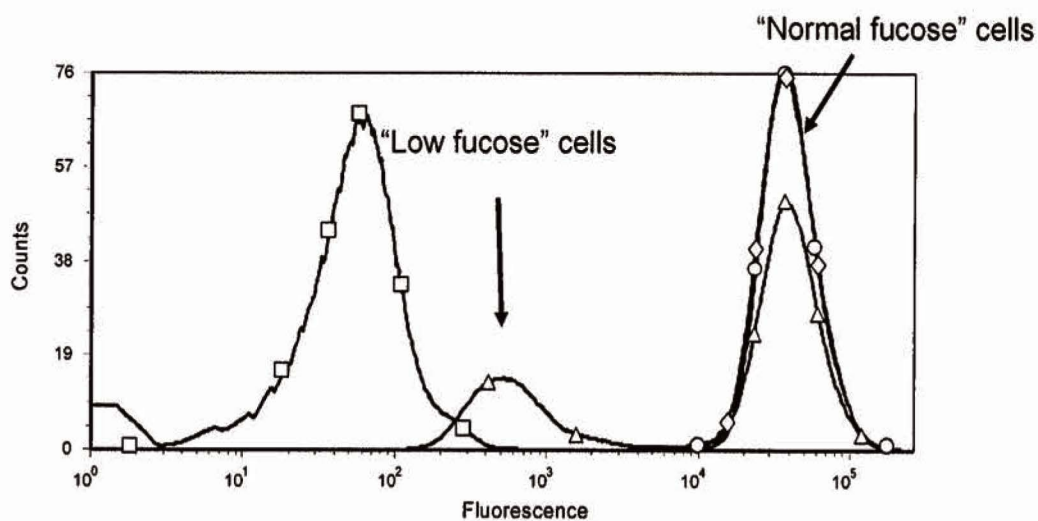


FIG. 7A

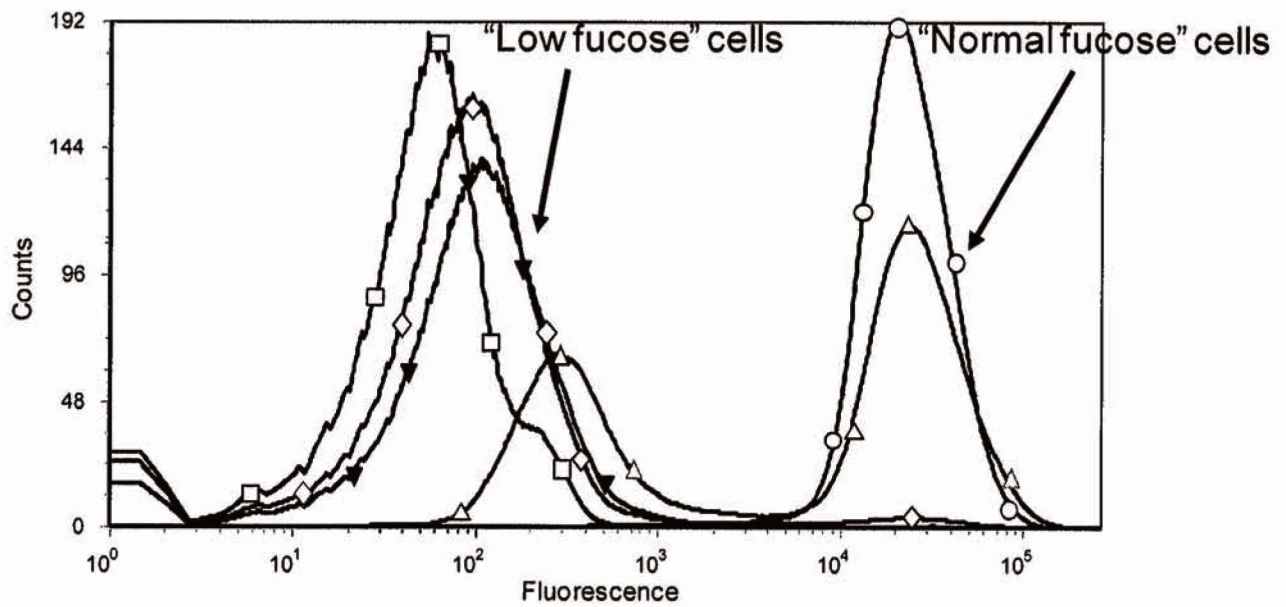


FIG. 7B

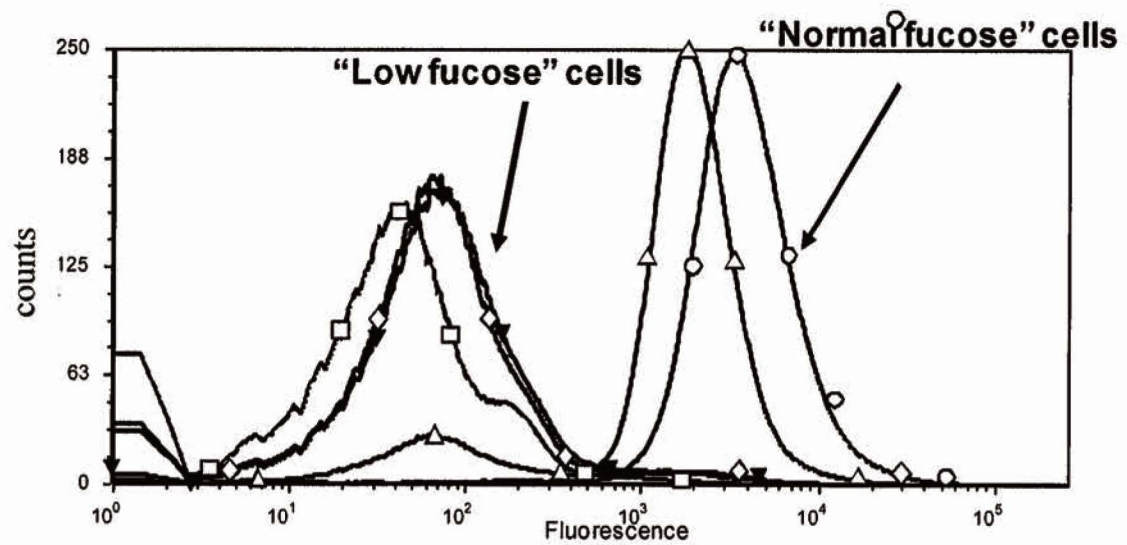


FIG.8A

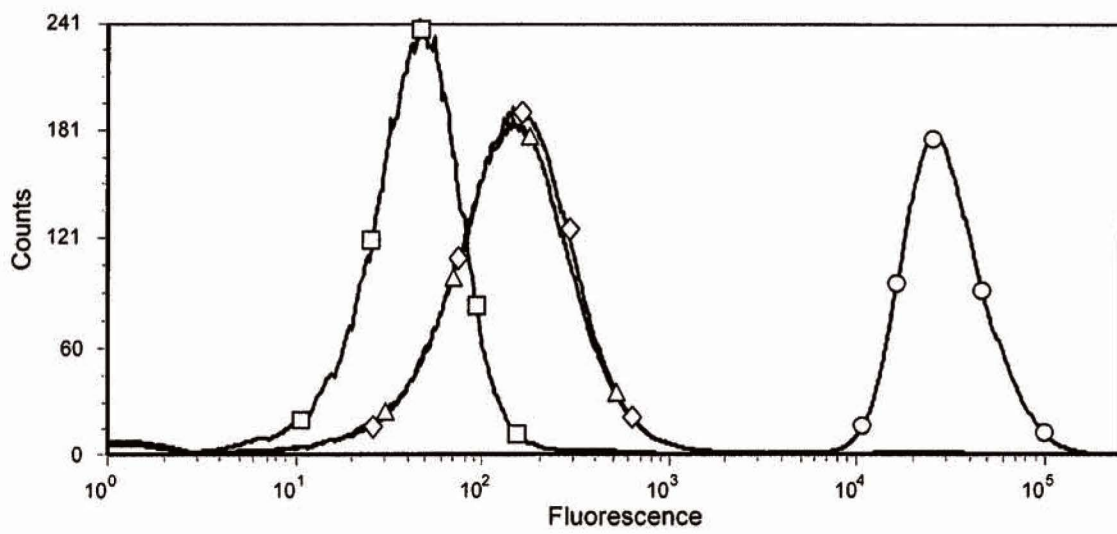


FIG.8B

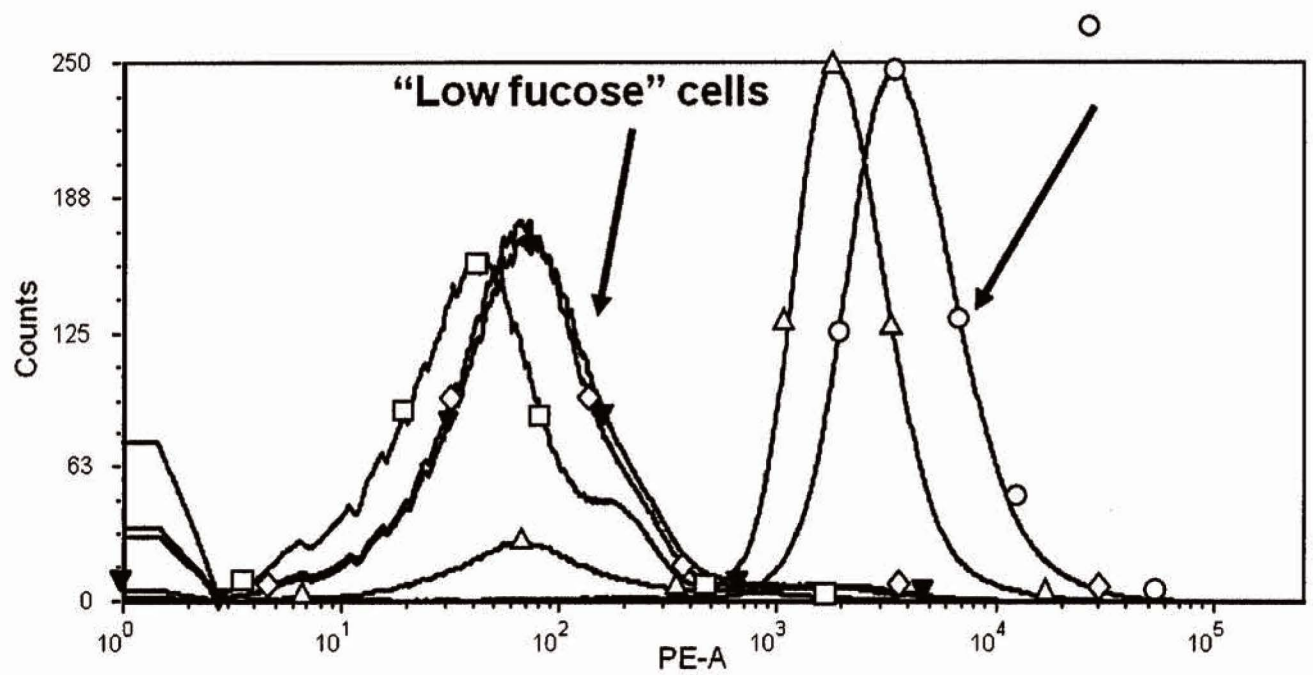


FIG. 9

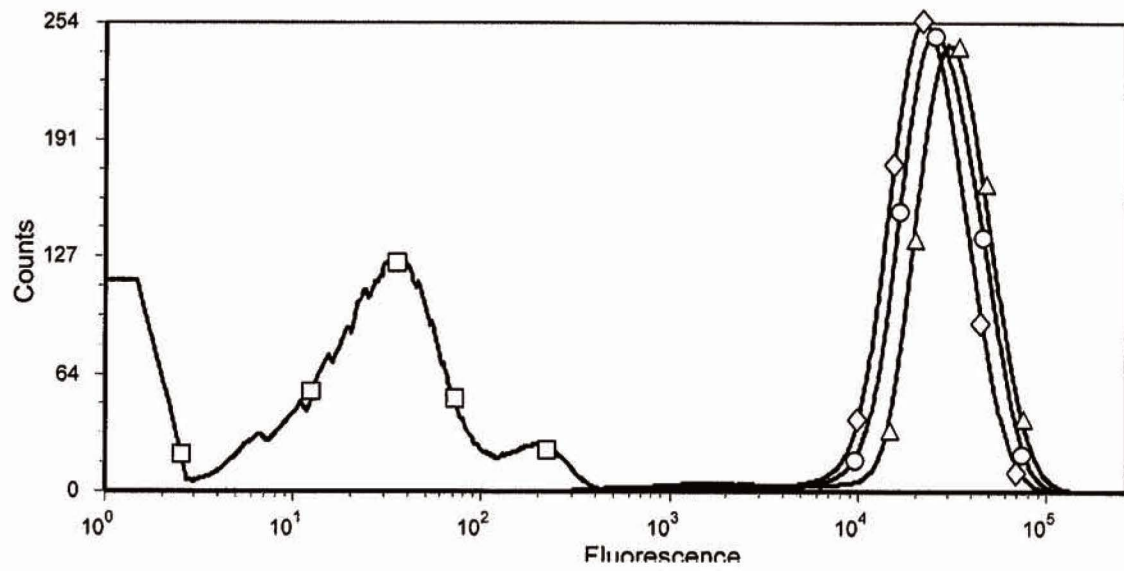


FIG. 10

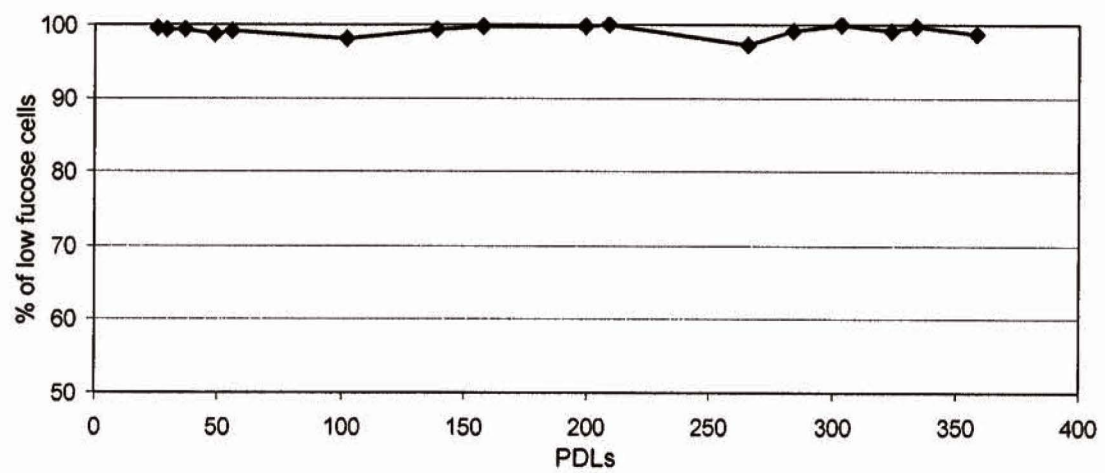


FIG. 11

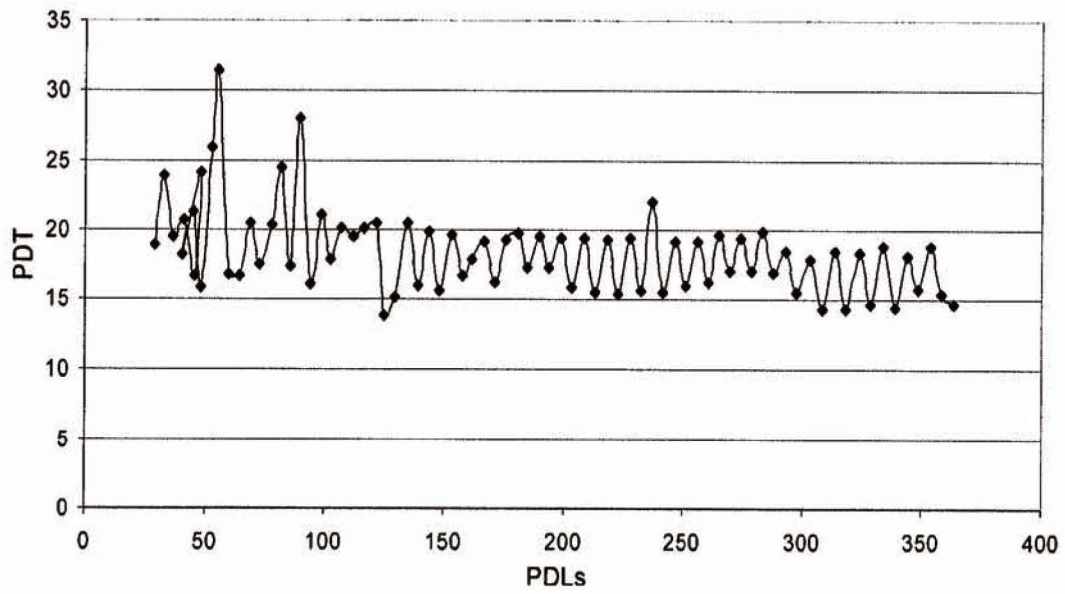


FIG.12

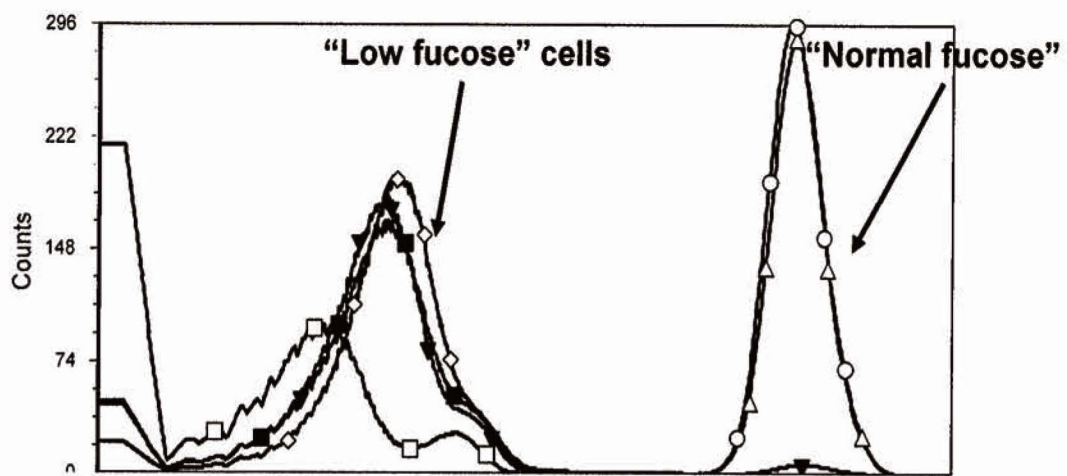


FIG. 13

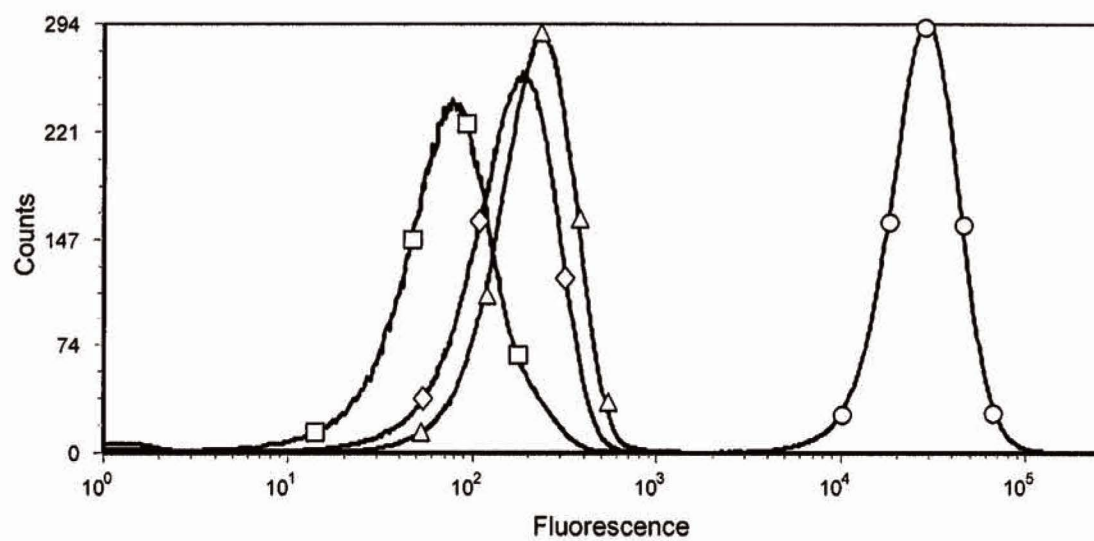


FIG. 14

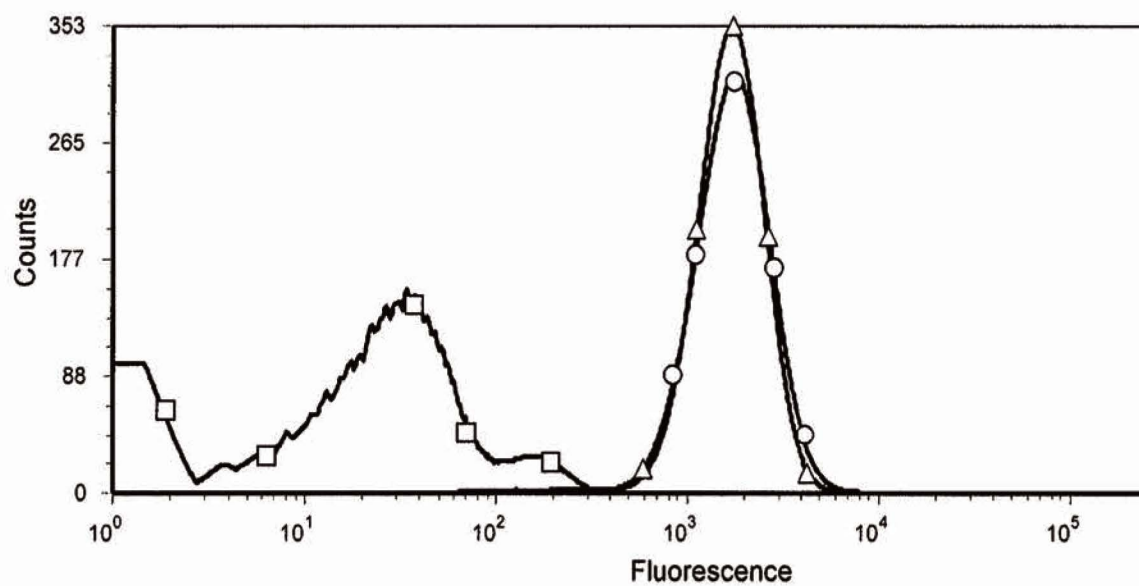


FIG.15

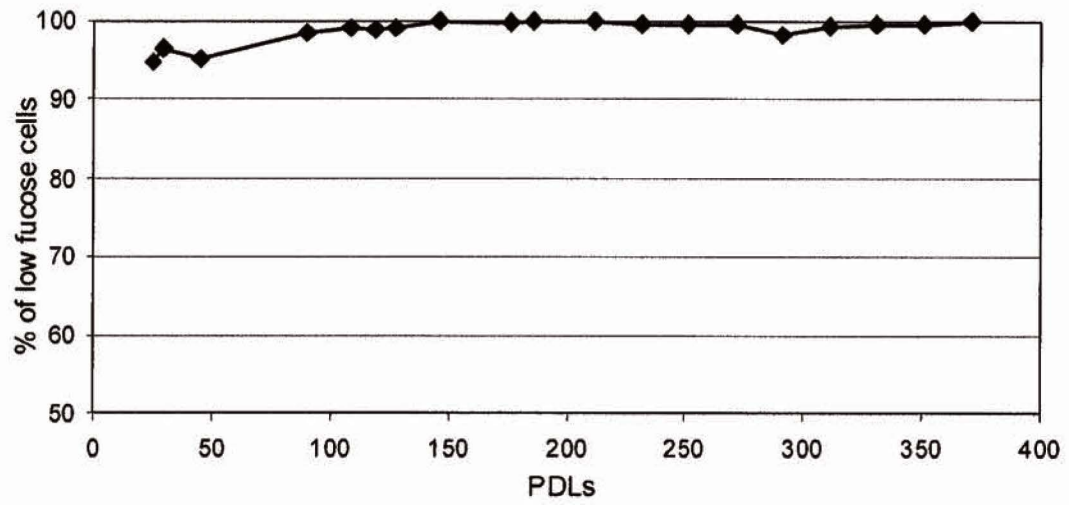


FIG. 16

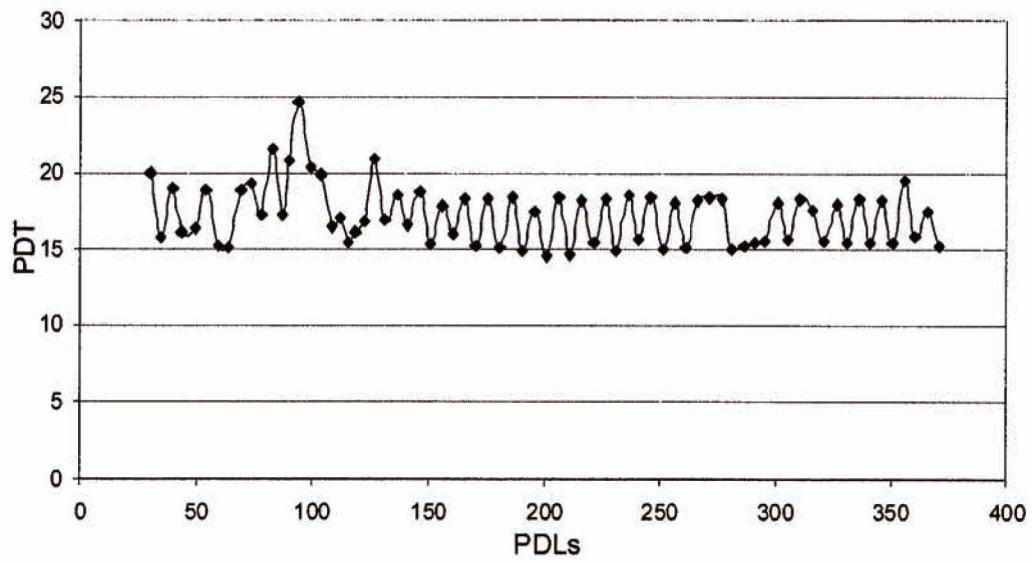


FIG. 17

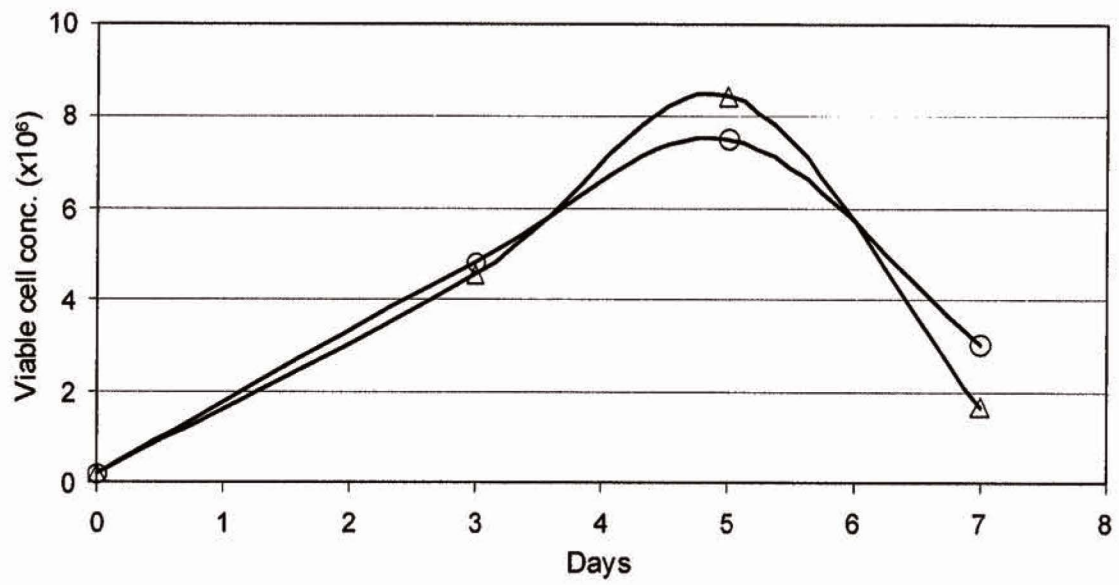


FIG 18

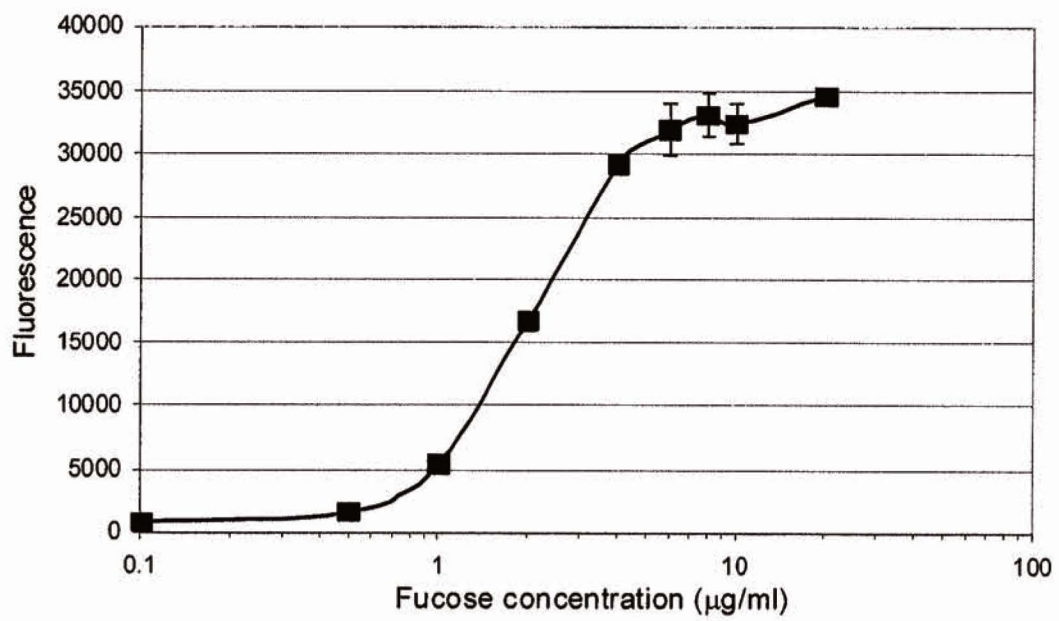


FIG. 19A

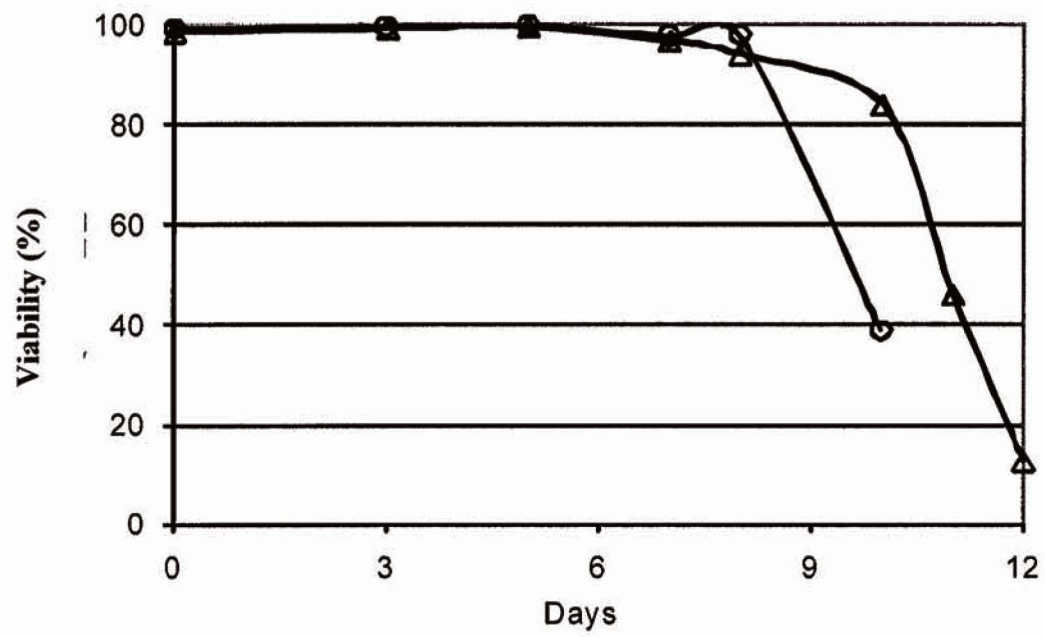


FIG 19B

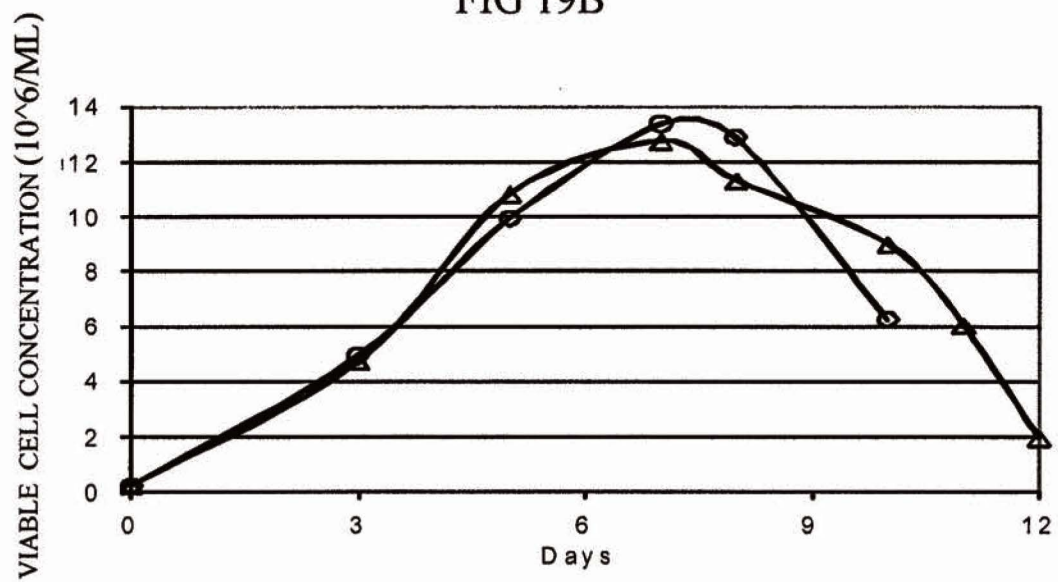


FIG. 19C

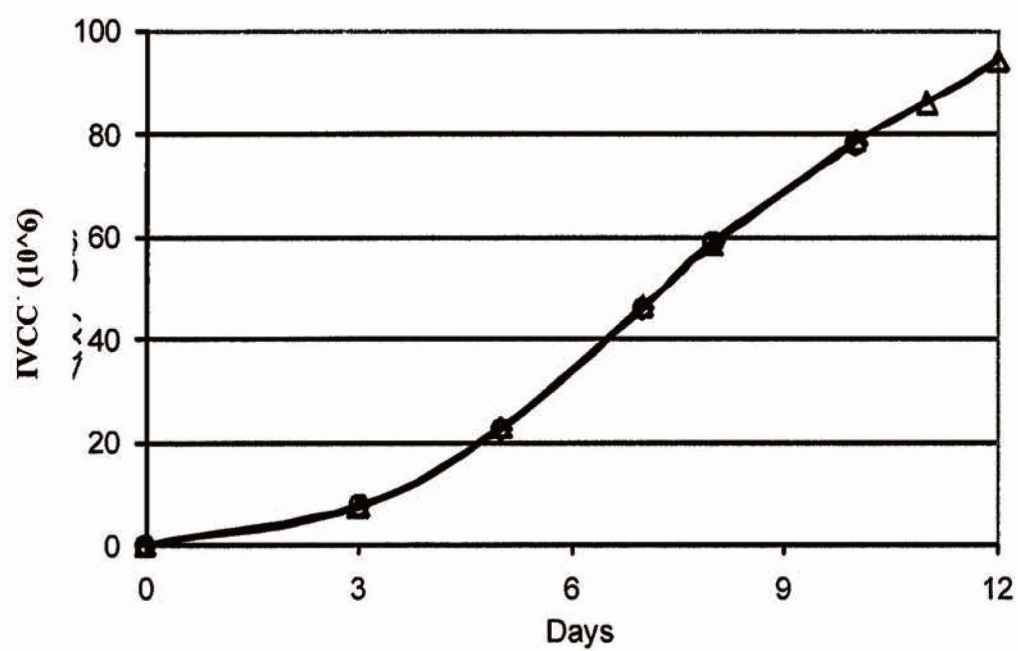


FIG.19D

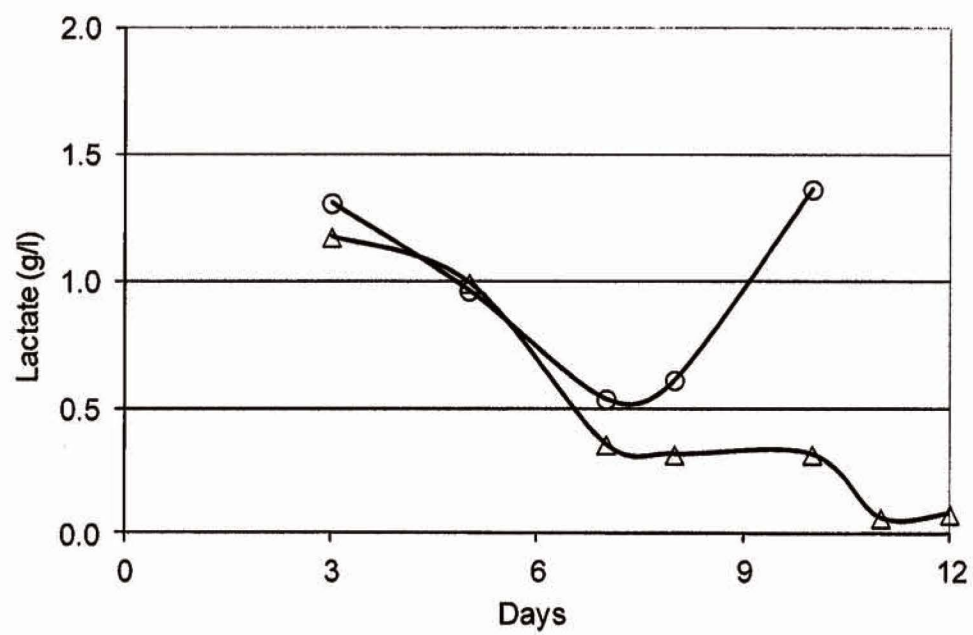


FIG 20

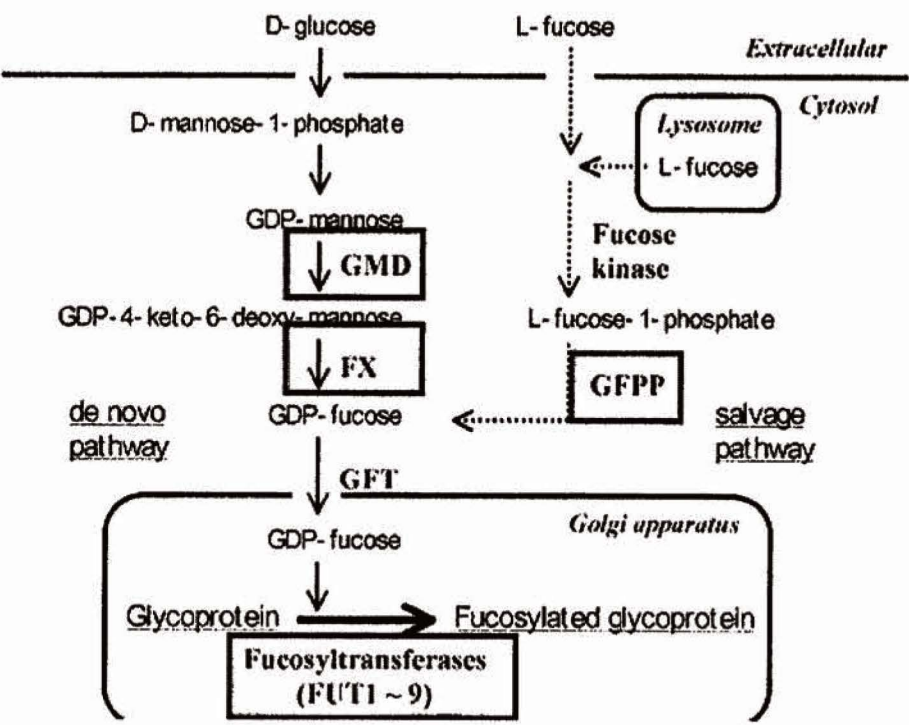
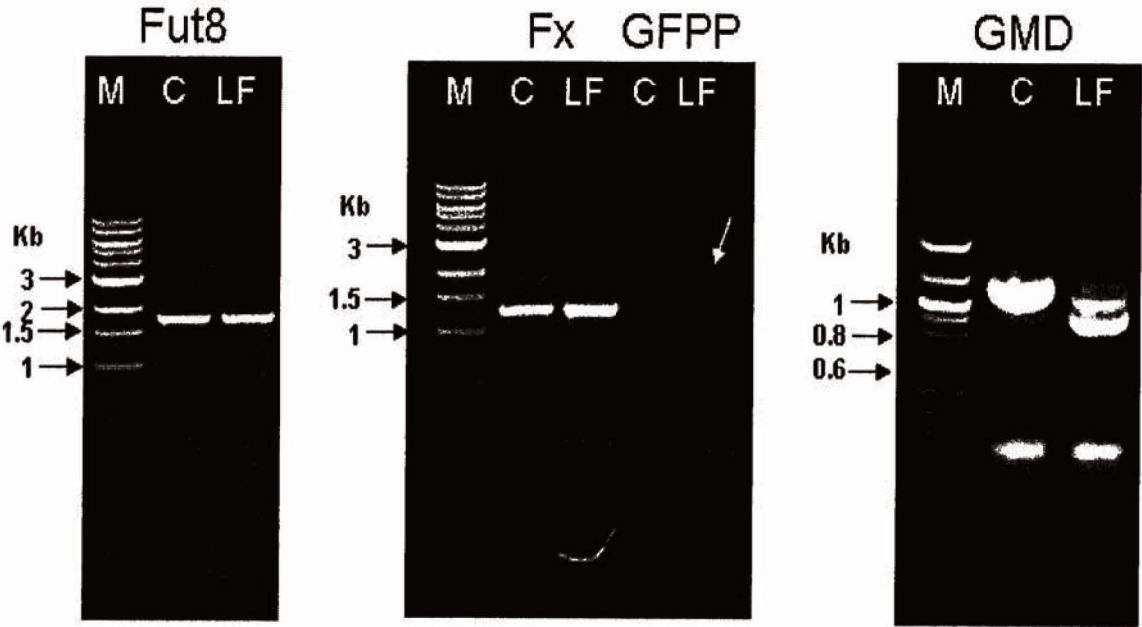


FIG. 21



FIGs.22A-B

A

GMD (Full)	1 mahapascpsrnsdgdgkprkvalitgitgqdgyslaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD SV1	1 mahapascpsrnsdgdgkprkvalitgitgqdgyslaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD (Full)	81 klhygdltdstclvkiinevkpteinylnaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD SV1	241 klhygdltdstclvkiinevkpteinylnaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD (Full)	161 kvqei pqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgqlecfs1
GMD SV1	481 kvqei pqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgqlecfs1
GMD (Full)	241 gnldakrdwghakdyveamwlm1qndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD SV1	721 gnldakrdwghakdyve----- <i>Deletion of Exon 8 and Exon 9 in SV1</i>
GMD (Full)	321 lkyyrpte vdf1qgdcskaqqklnwkprvafdelvremvqadvelmrtnpna
GMD SV1	772 -----df1qgdcskaqqklnwkprvafdelvremvqadvelmrtnpna

B

GMD (Full)	1 mahapascpsrnsdgdgkprkvalitgitgqdgyslaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD SV2	1 mahapascpsrnsdgdgkprkvalitgitgqdgyslaefllekgye----- <i>Deletion of Exon 3 and Exon 4 in SV2</i>
GMD (Full)	81 klhygdltdstclvkiinevkpteinylnaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD SV2	148 -----isfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD (Full)	161 kvqei pqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgqlecfs1
GMD SV2	283 kvqei pqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgqlecfs1
GMD (Full)	241 gnldakrdwghakdyveamwlm1qndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD SV2	523 gnldakrdwghakdyveamwlm1qndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD (Full)	321 lkyyrpte vdf1qgdcskaqqklnwkprvafdelvremvqadvelmrtnpna
GMD SV2	763 lkyyrpte vdf1qgdcskaqqklnwkprvafdelvremvqadvelmrtnpna

FIG. 23A

GMD SV1	1	atggctcacgctcccgtagctgcccagctccaggaactctggggaaggcgataagggcaagccaggaagggtggcgctcatcacgggc
GMD SV2	1	atggctcacgctcccgtagctgcccagctccaggaactctggggaaggcgataagggcaagccaggaagggtggcgctcatcacgggc
GMD SV1	91	atcacggccaggatggctcacttggcagaattcctgctggagaaaggatacagaggttcattggaattgtacggcgatccagttcattt
GMD SV2	91	atcacggccaggatggctcacttggcagaattcctgctggagaaaggatacag-----
GMD SV1	181	aatacaggtcgaattgaacatttatataagaatccacaggctcatattgaaggaaacatgaagttgcactatggtgacctcaccgacagc
GMD SV2		----- <i>Deletion of Exon 3 and Exon 4 in SV2</i> -----
GMD SV1	271	acctgcctagtaaaaaatcatcaatgaagtcaaacctacagagacttacaatcttgggtgccagagccatgtcaagatttcctttgactta
GMD SV2	146	----- <i>BglII</i> -----agatttcctttgactta
GMD SV1	361	gcagagtacactgcagatggtgatggagttggcacttgcggcttctggatgcaattaagacttgtggccttataaatctgtgaagttc
GMD SV2	163	gcagagtacactgcagatggtgatggagttggcacttgcggcttctggatgcaattaagacttgtggccttataaatctgtgaagttc
GMD SV1	451	taccaggcctcaactagtgaactgtatggaaaagtgcagaaaataccccagaaagagaccacccctttctatccaaggtcgccctatgga
GMD SV2	253	taccaggcctcaactagtgaactgtatggaaaagtgcagaaaataccccagaaagagaccacccctttctatccaaggtcgccctatgga
GMD SV1	541	gcagccaaactttatgcctattggattgtagtgaacttgcagaggcttataatctcttgcgggtgaacggcatctcttcaatcatgag
GMD SV2	343	gcagccaaactttatgcctattggattgtagtgaacttgcagaggcttataatctcttgcgggtgaacggcatctcttcaatcatgag
GMD SV1	631	agtcctagaagaggagtaattttgttactcgaaaaattagccggtcagtagctaagatttaccttggacaactggaatgtttcagtttg
GMD SV2	433	agtcctagaagaggagtaattttgttactcgaaaaattagccggtcagtagctaagatttaccttggacaactggaatgtttcagtttg
GMD SV1	721	ggaaatctggagcgcaaacgagactggggccatgccaaggactatgtcgagg-----
GMD SV2	523	ggaaatctggagcgcaaacgagactggggccatgccaaggactatgtcgaggctatgtggctgatgtacaaaaatgatgaaccagaggac
GMD SV1		----- <i>Deletion of Exon 8 and Exon 9 in SV1</i> -----
GMD SV2	613	tttgtcatagctactggggaagttcatagtgtccgtgaatttgttgagaaatcattcatgcacatggaaagaccatttgtgtgggaaggaa
GMD SV1	773	----- <i>XmnI</i> -----ac
GMD SV2	703	aagaatgaaatgaagtgggcagatgtaaagagaccggcaaaatttcattgtgactgtggaatctgaaatactaccgaccaactgaagtggac
GMD SV1	775	ttcctgcagggagactgctccaaggcgcagcagaaactgaaactggaagcccccgcgtgcctttgacgagctggtgagggagatgggtgcaa
GMD SV2	793	ttcctgcagggagactgctccaaggcgcagcagaaactgaaactggaagcccccgcgtgcctttgacgagctggtgagggagatgggtgcaa
GMD SV1	865	gccgatgtggagctcatgagaaccaaccccaacgcctga
GMD SV2	883	gccgatgtggagctcatgagaaccaaccccaacgcctga

FIG. 23B

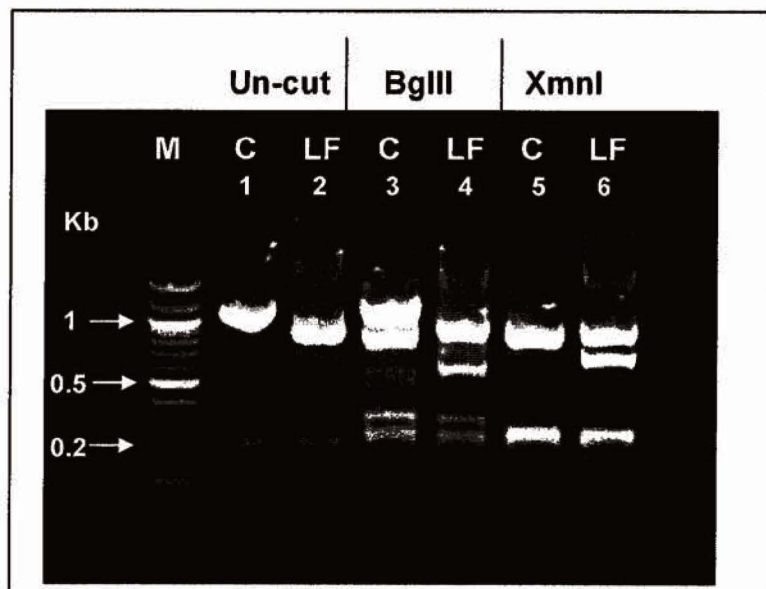


FIG. 24

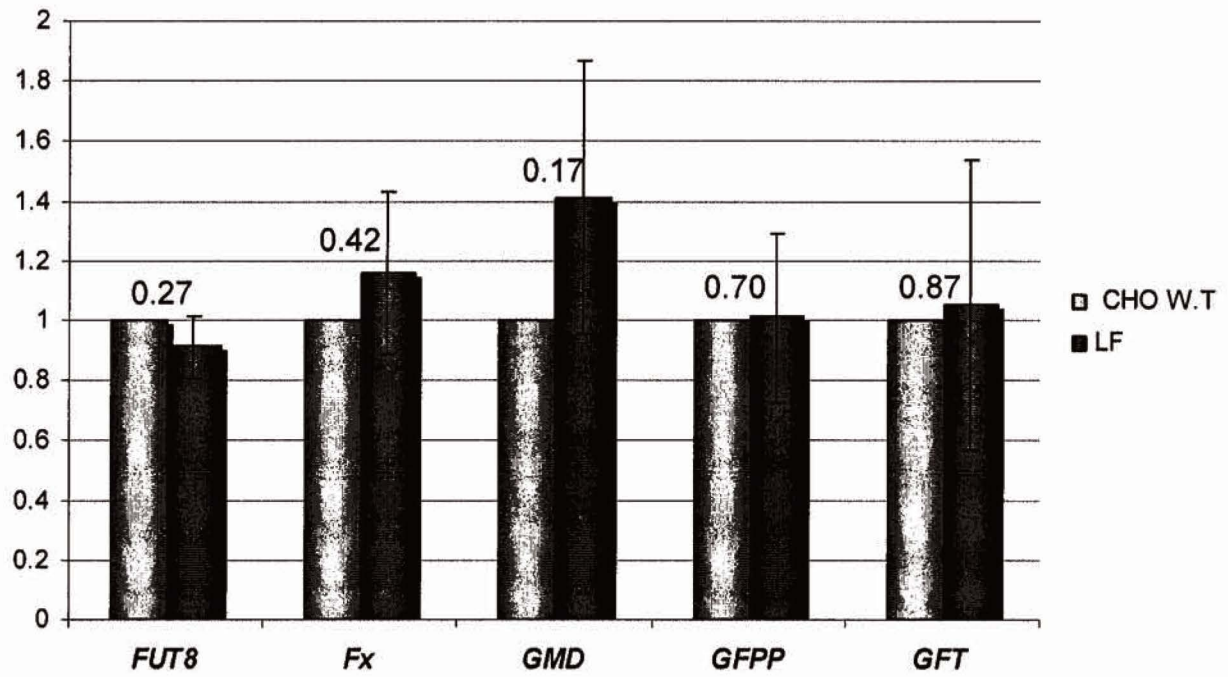


FIG. 25

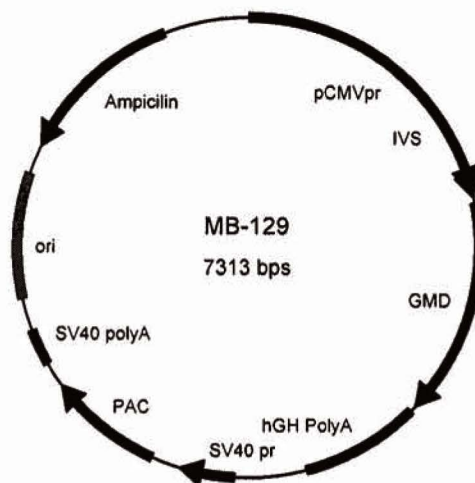


FIG.26

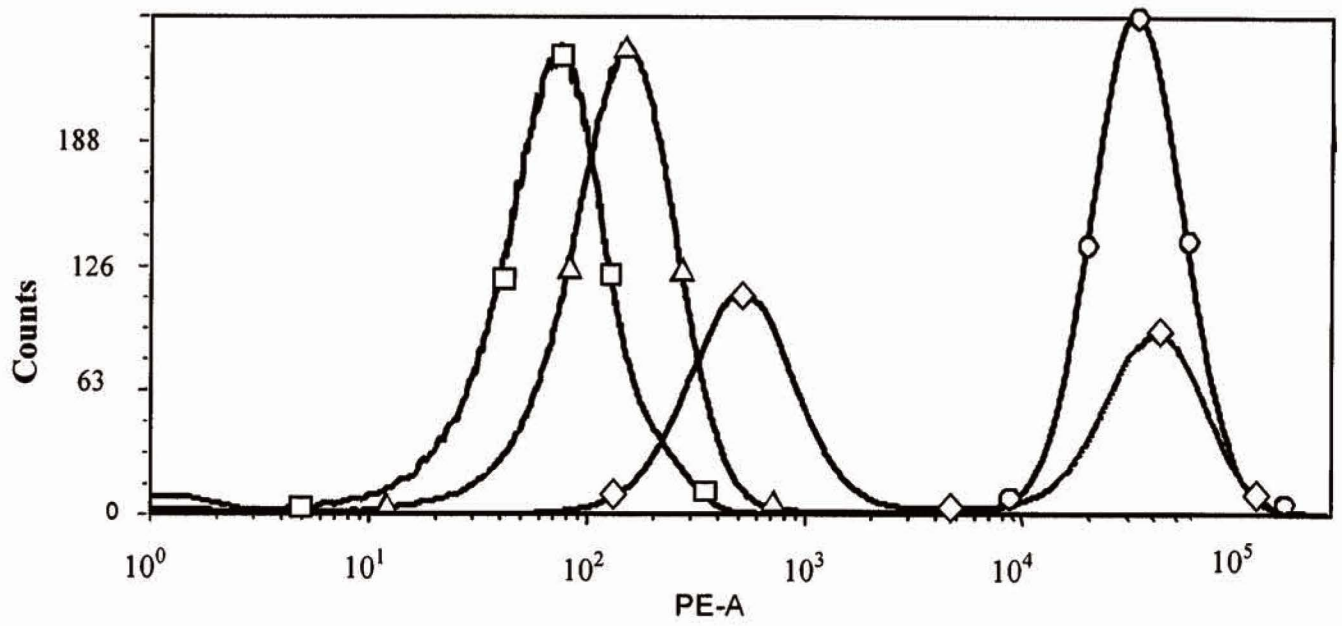


FIG.27

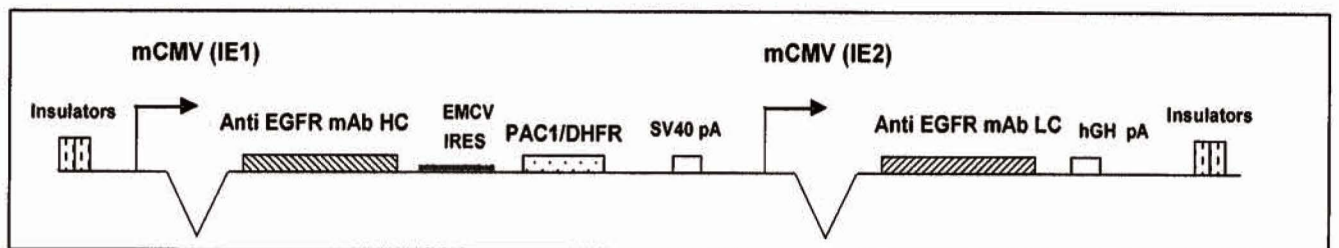


FIG.28

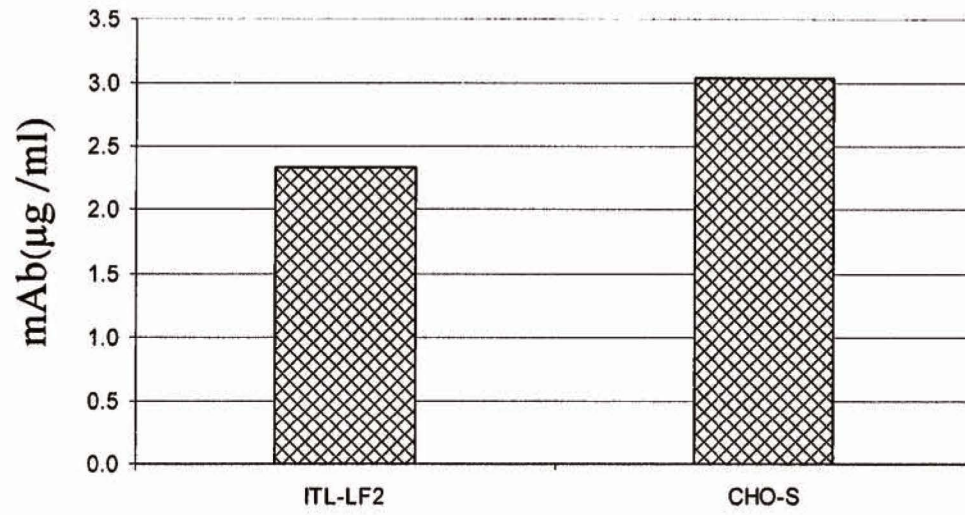


FIG. 29

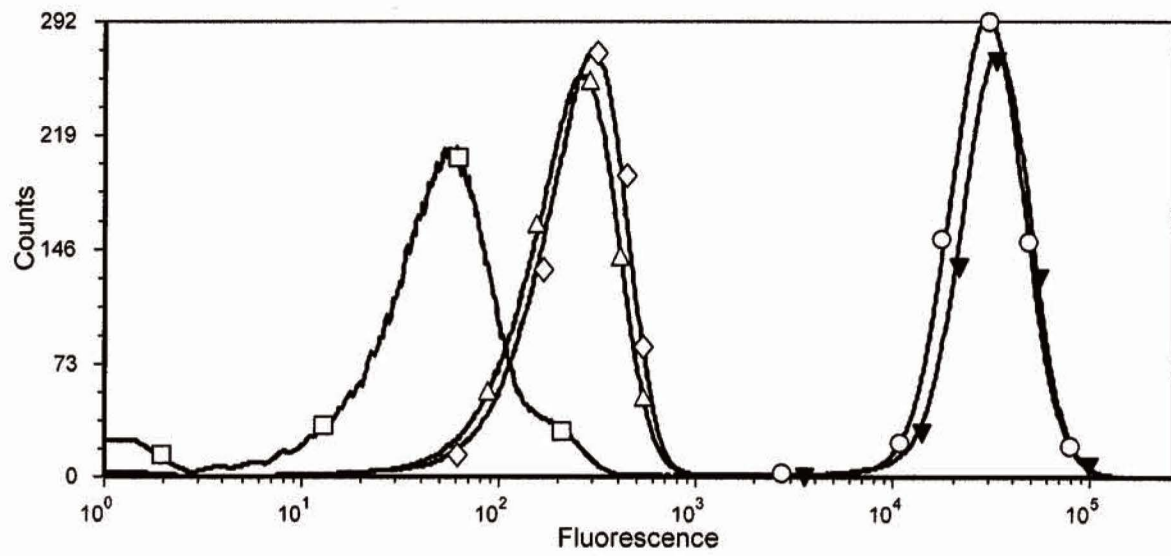
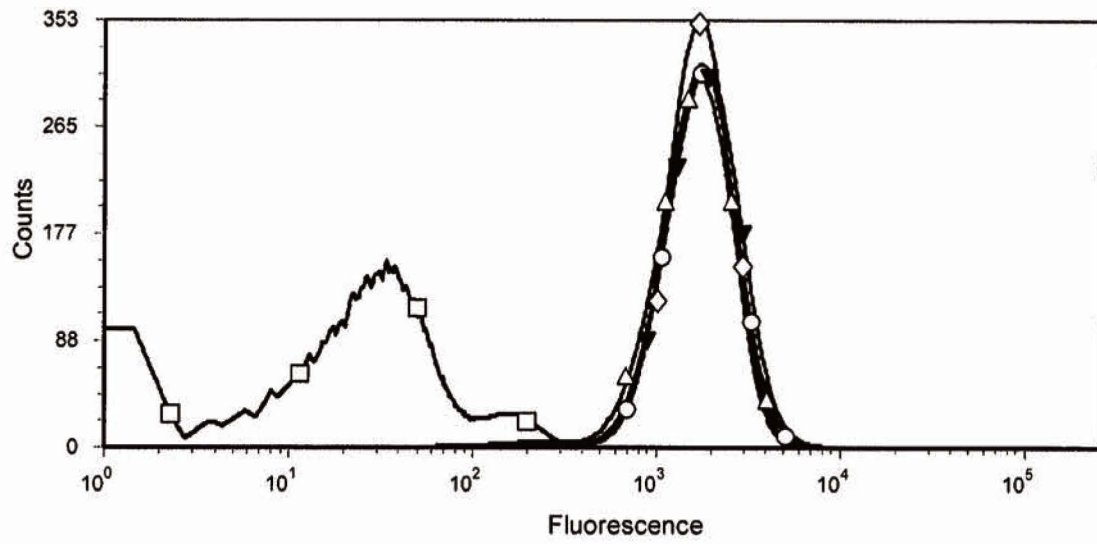


FIG. 30



FIGs. 31A-B

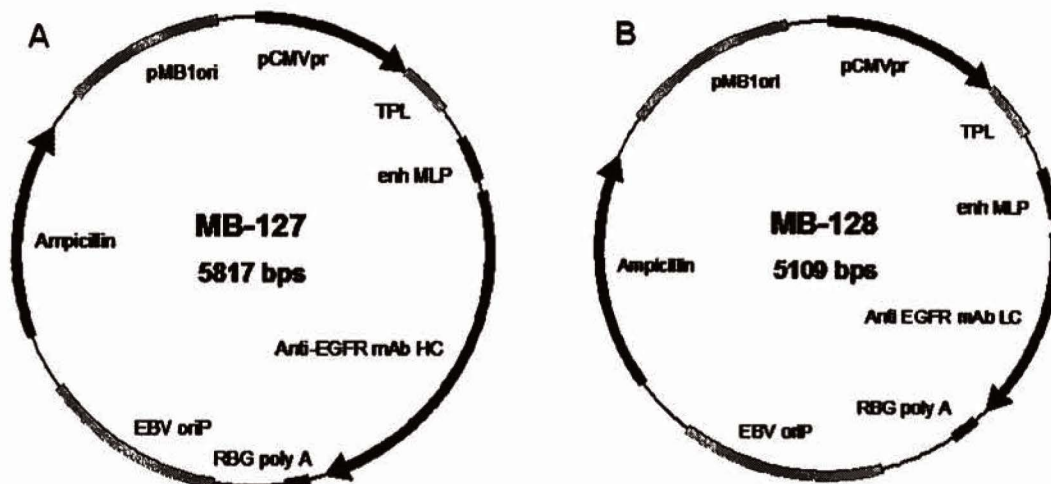


FIG.32

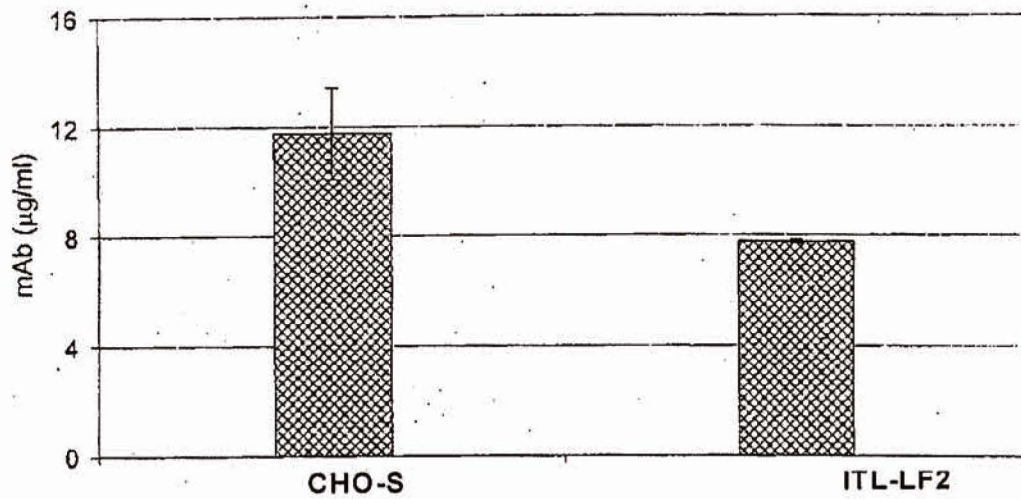


FIG. 33

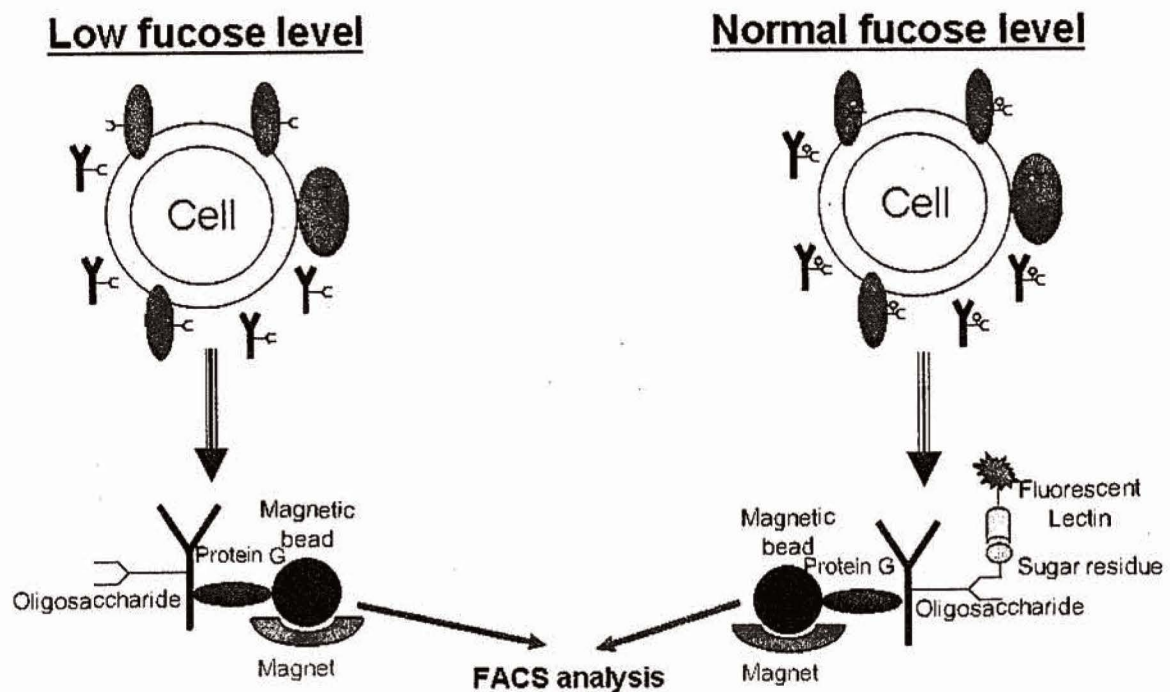


FIG. 34

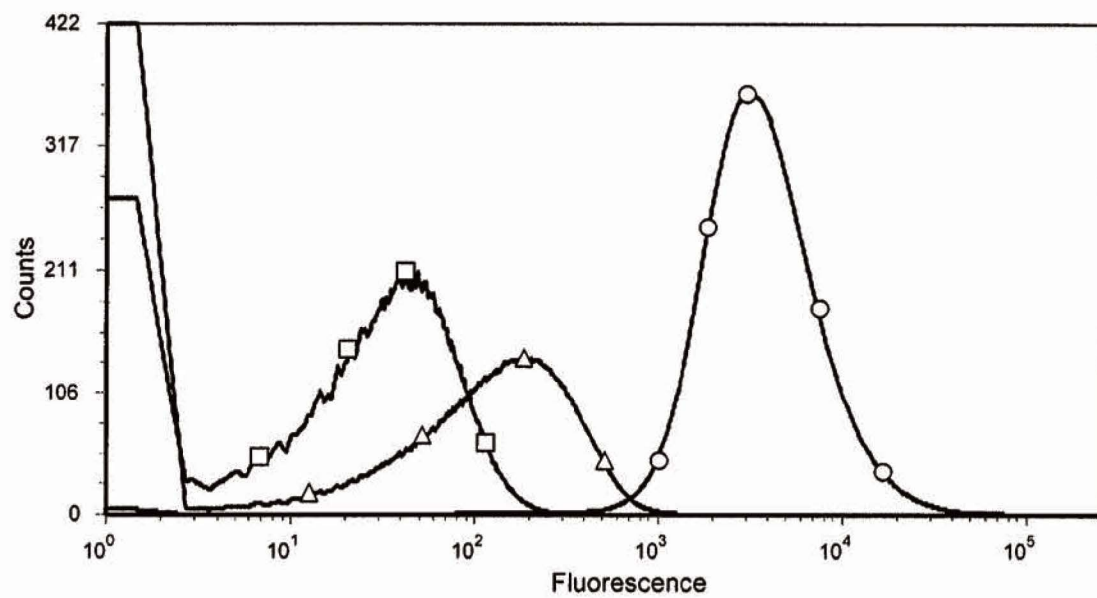


FIG. 35

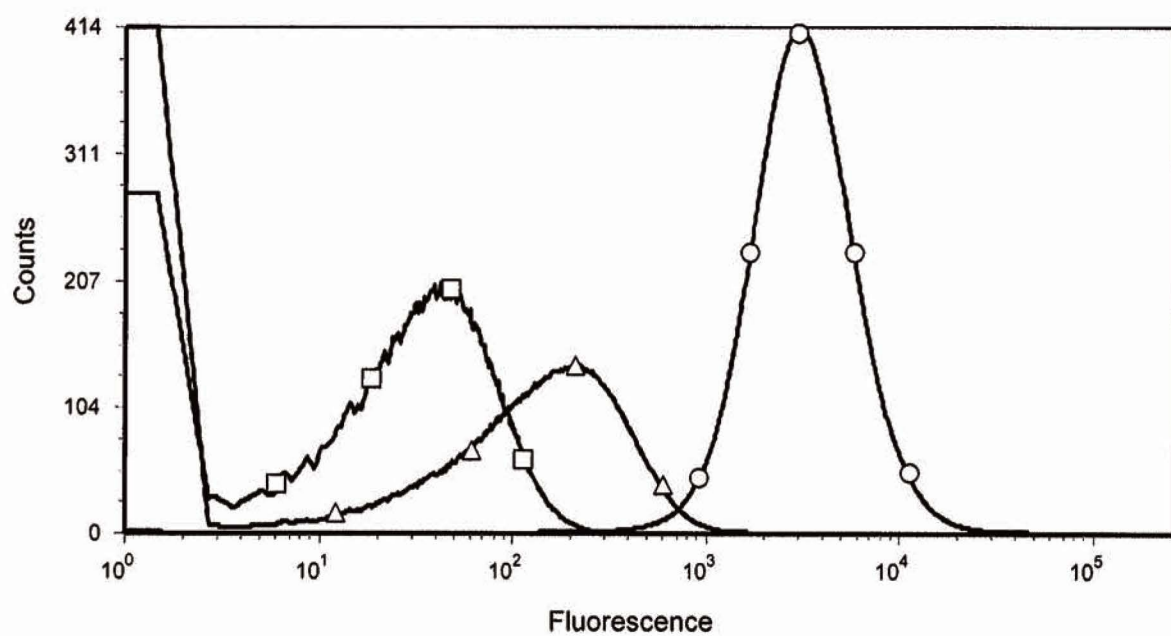


FIG. 36

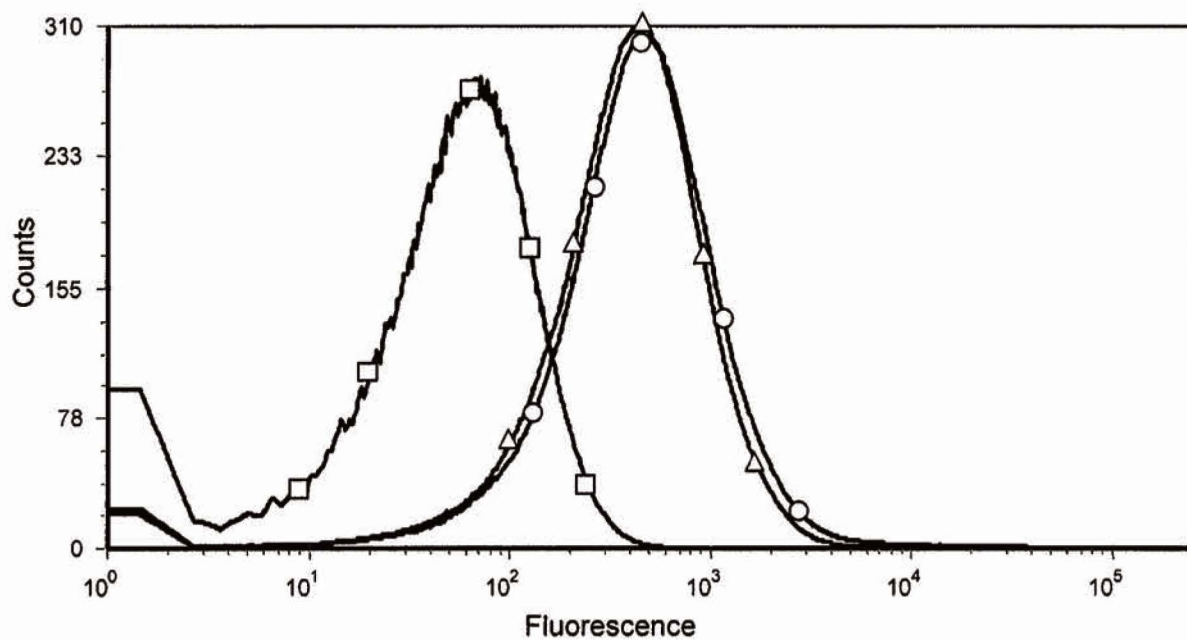


FIG. 37

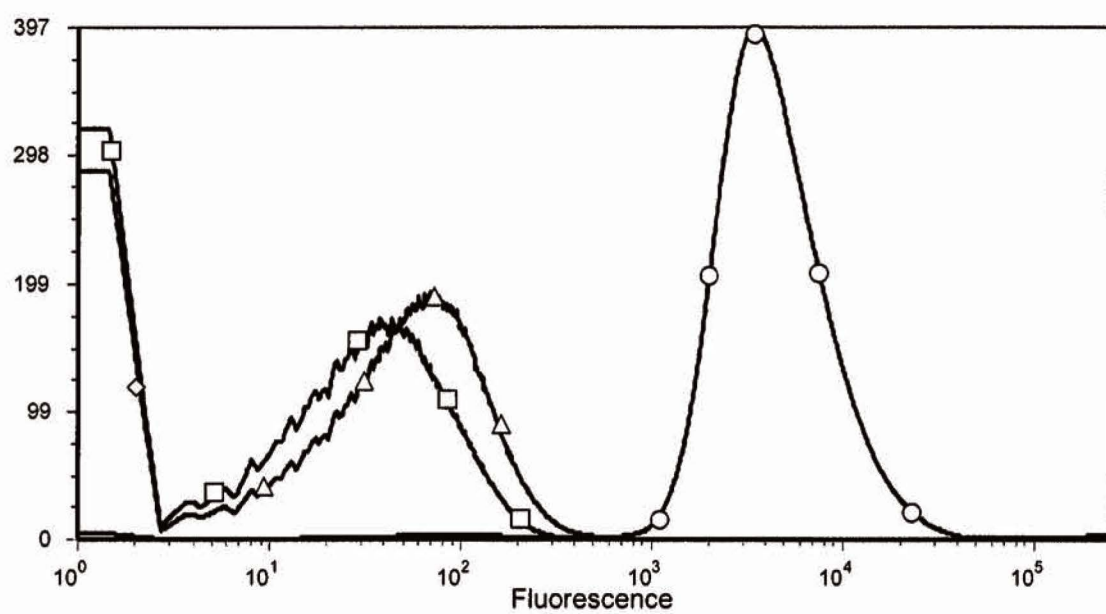


FIG. 38

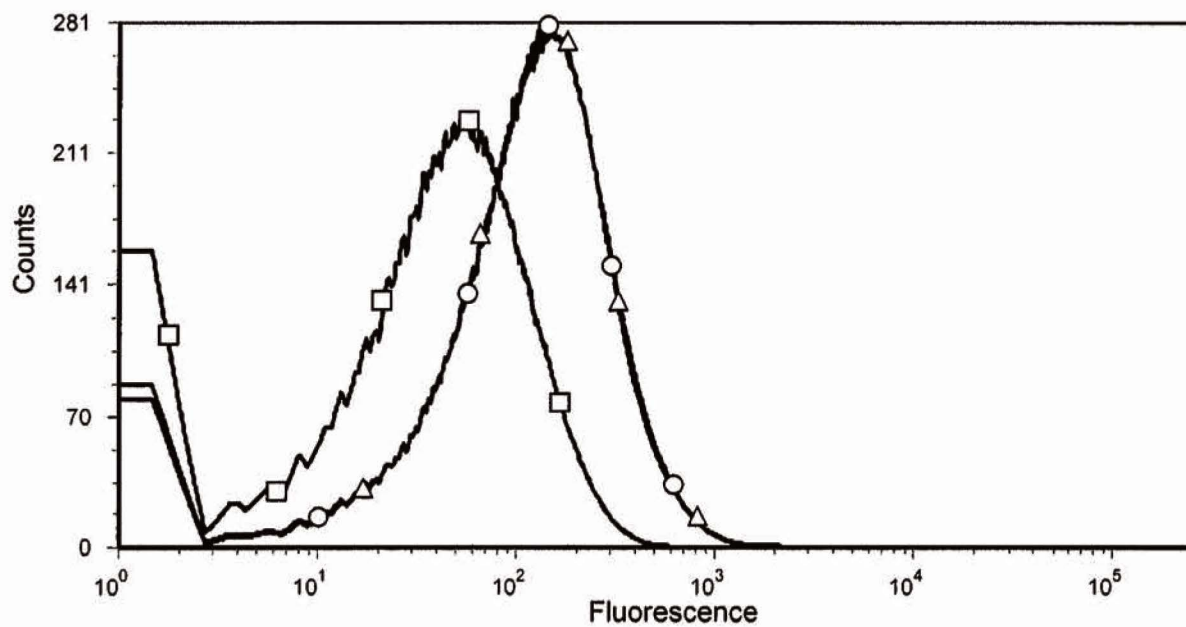


FIG. 39

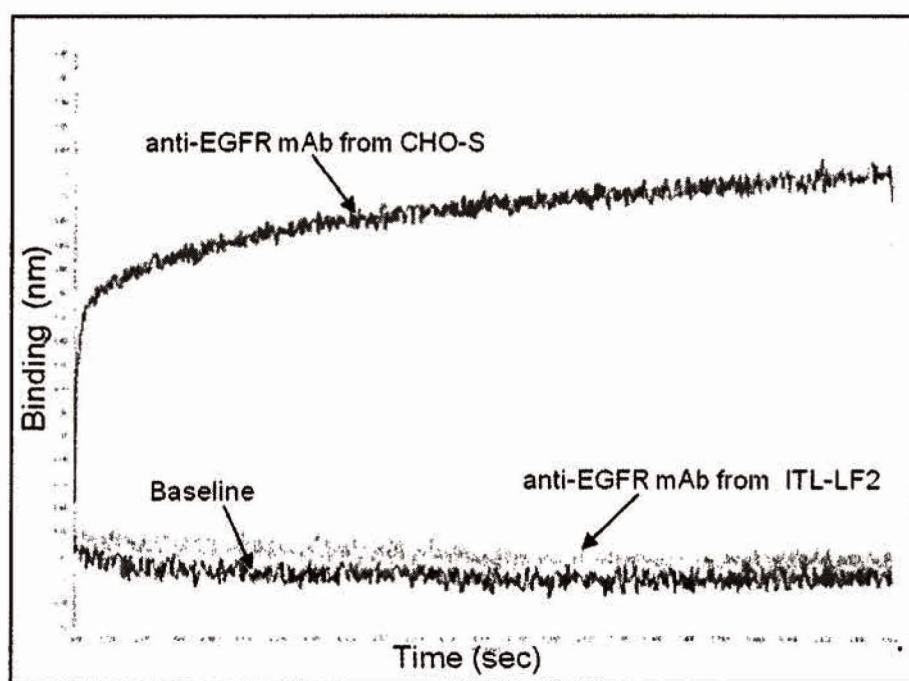


FIG. 40

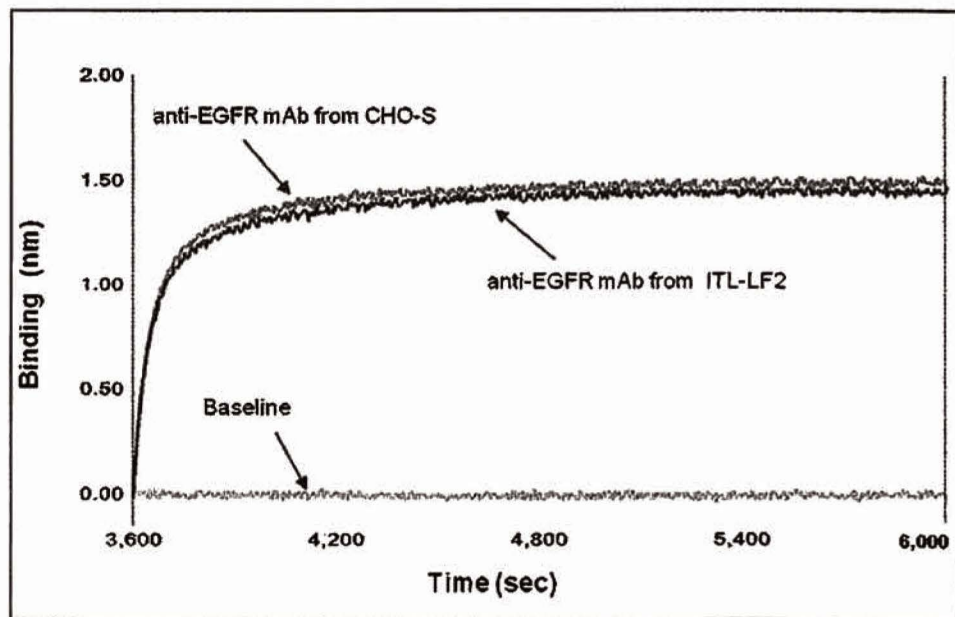


FIG. 41

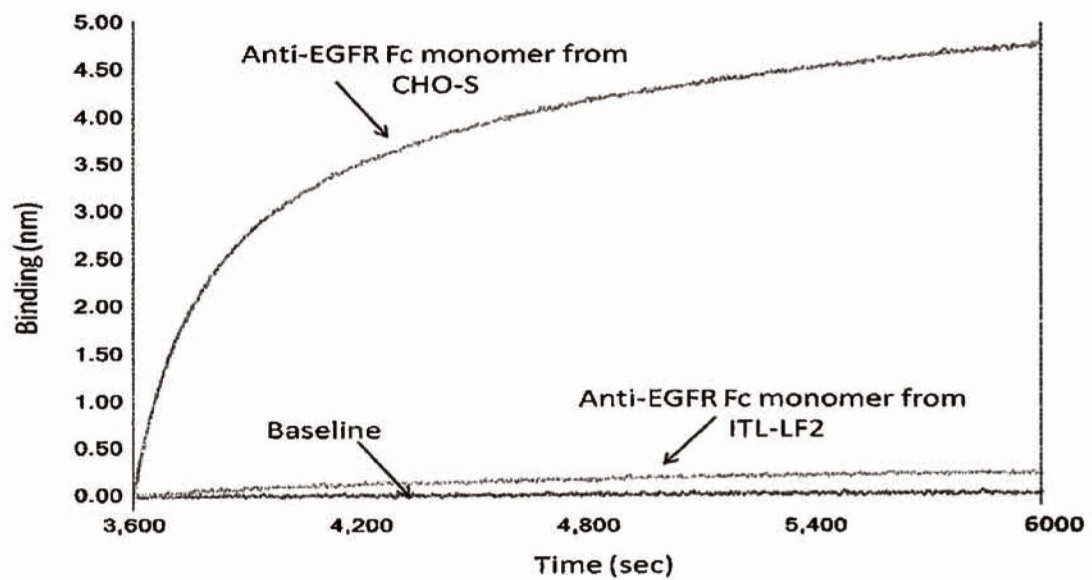


FIG. 42

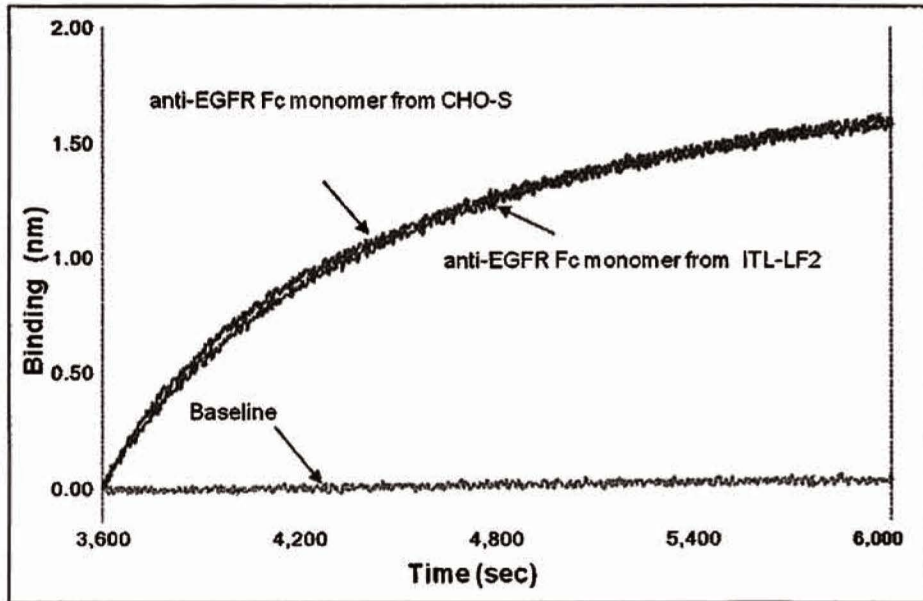


FIG. 43

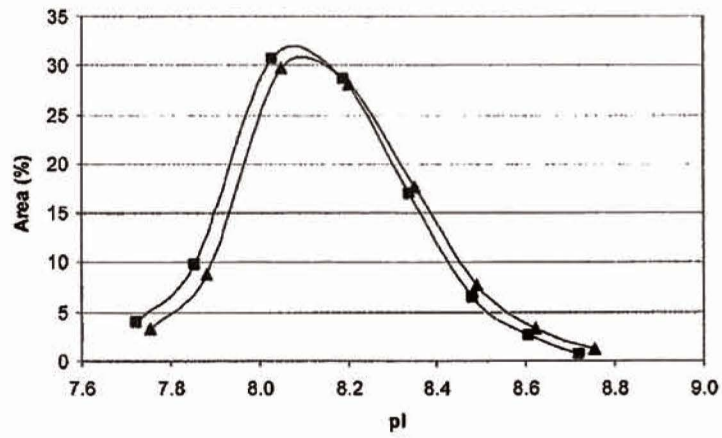


FIG. 44

Sample	Glycan Structure	Relative abundance	Fucosylation Percentage
Normal Fucose CHO-S WT	 G0-F	25.5 %	100 %
	 G1-F	56.8 %	
	 G2-F	17.8 %	
Low Fucose ITL-LF2	 G0-F	45.9 %	0%
	 G1-F	49.0 %	
	 G2-F	5.1 %	

FIG. 45

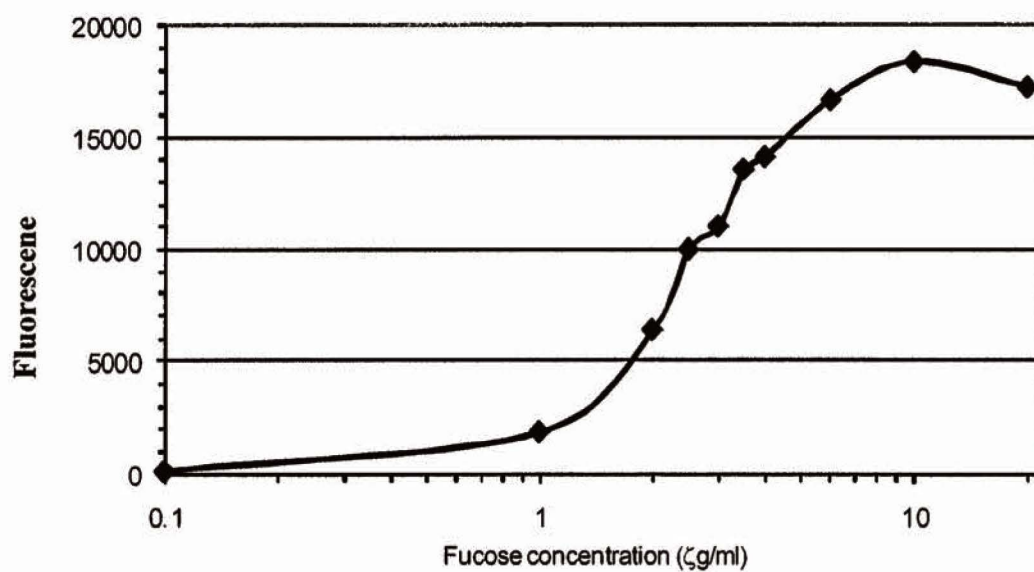


FIG. 46

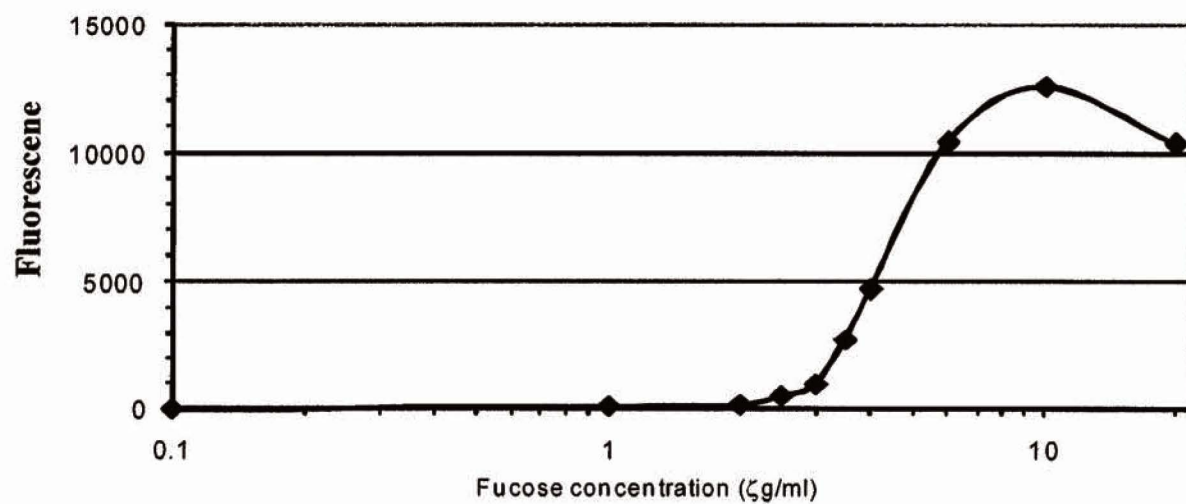


FIG. 47

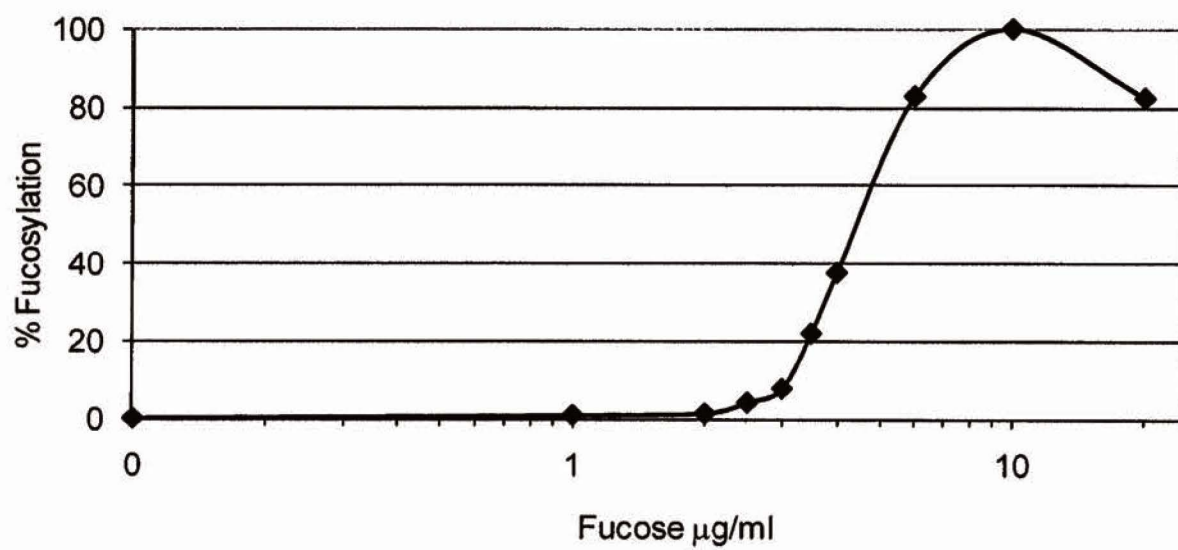


FIG. 48A

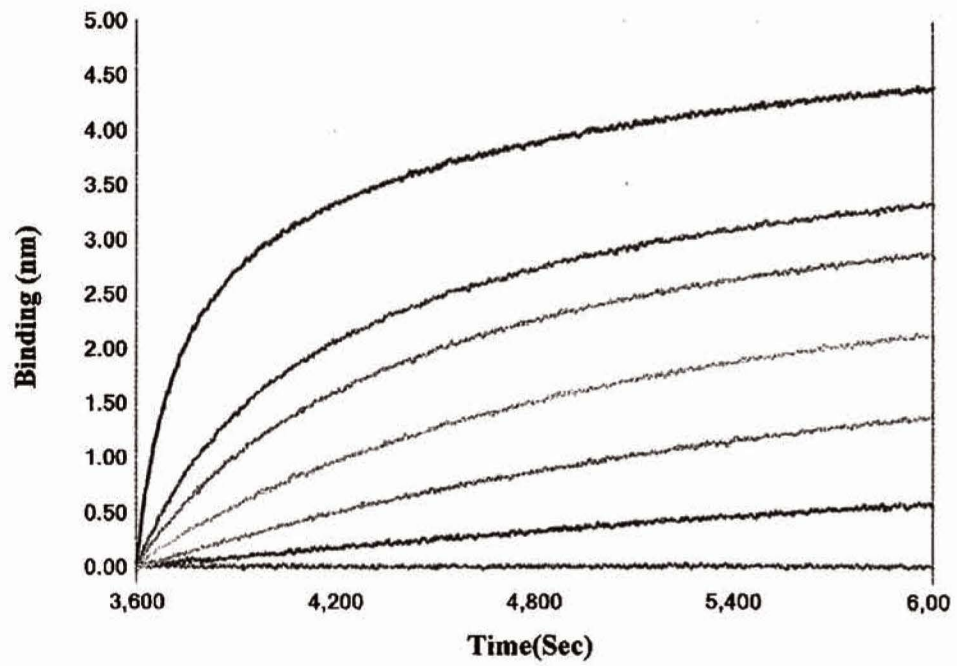


FIG. 48B

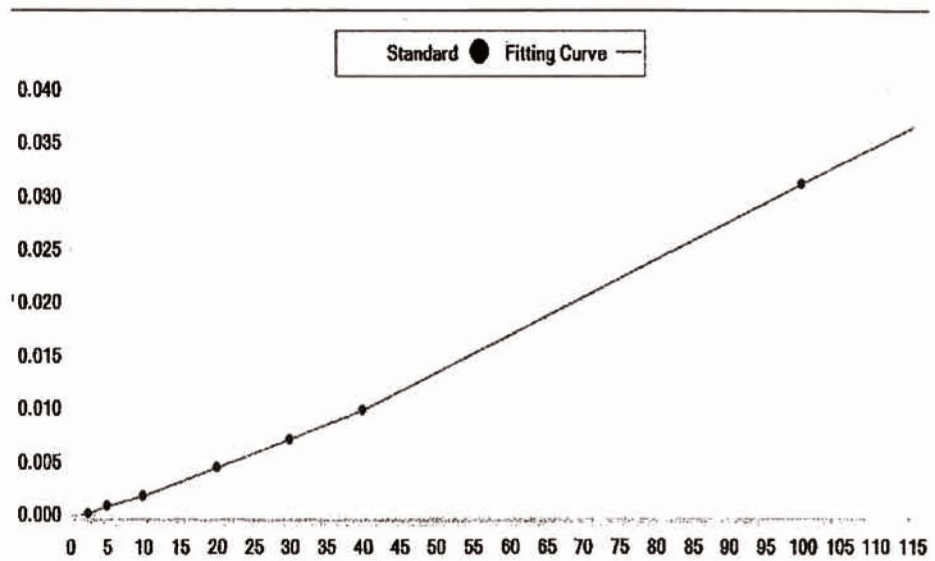


FIG.49

