

FIG.1

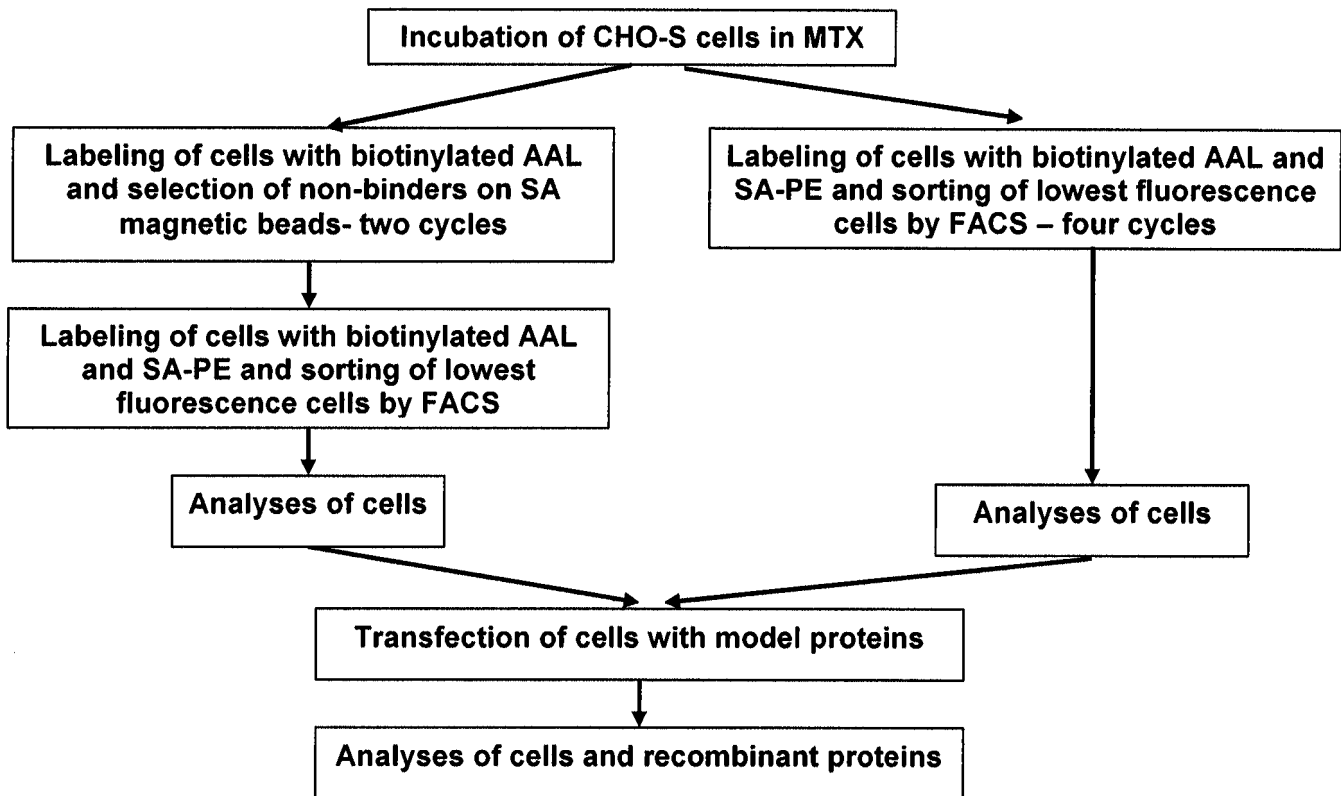


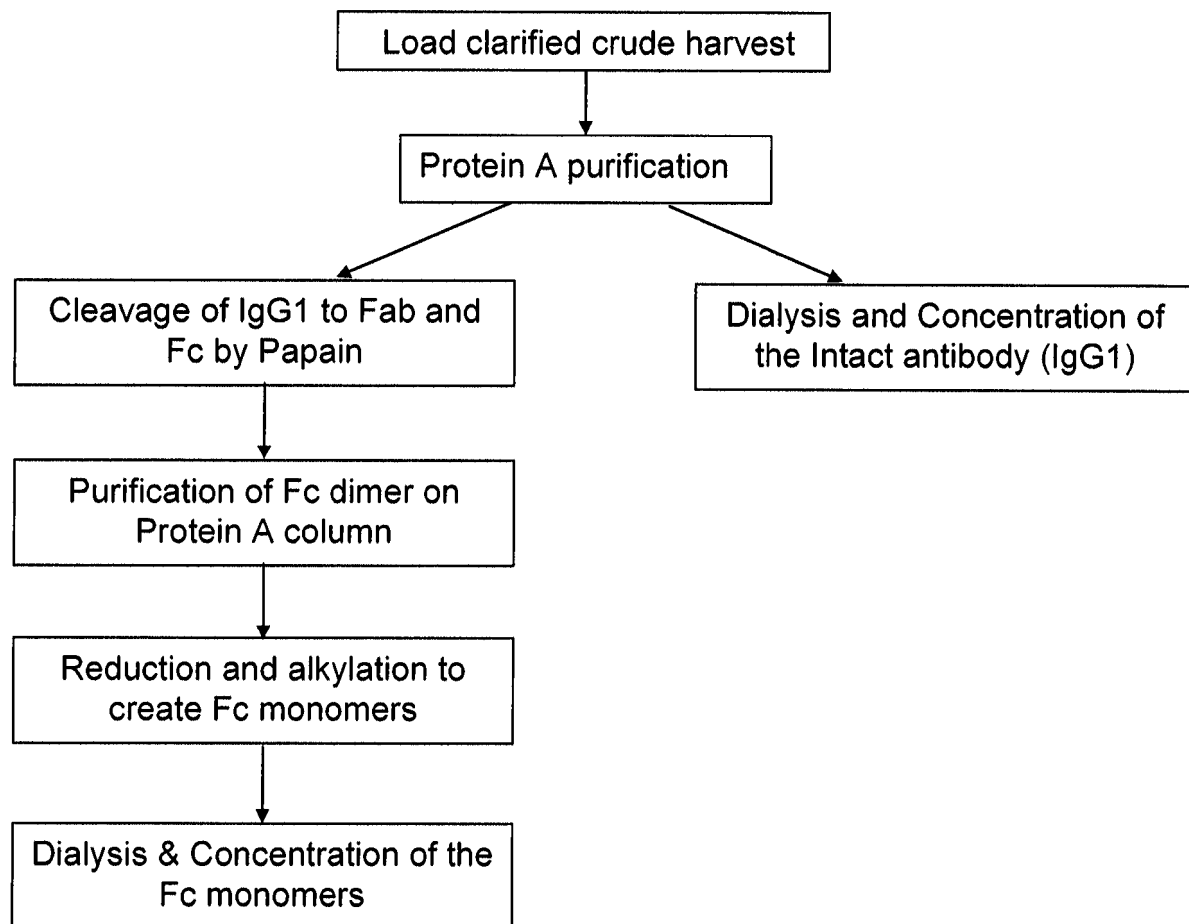
FIG.2

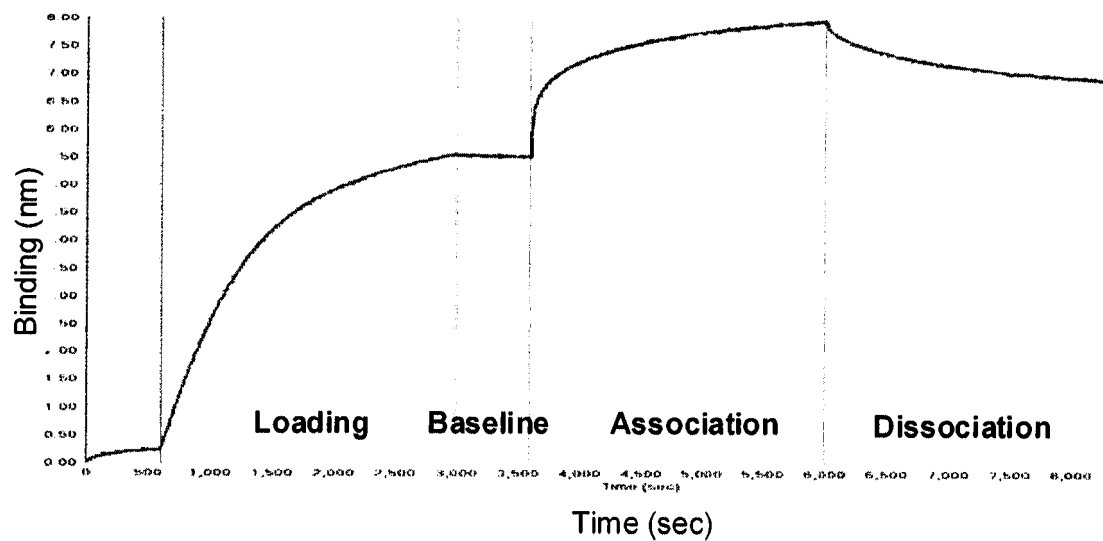
FIG. 3



FIG. 5

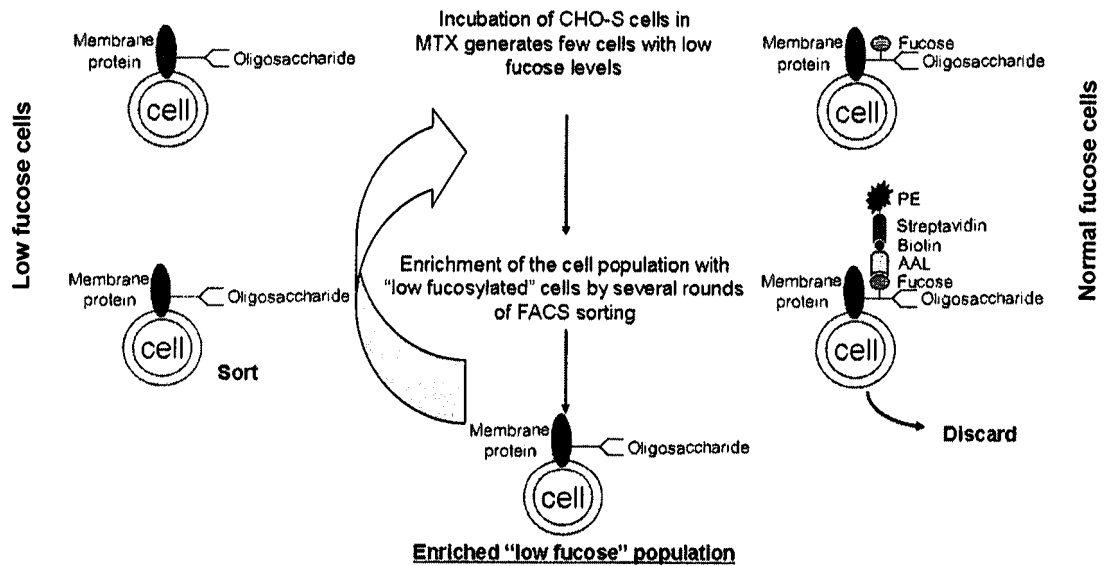


FIG. 6

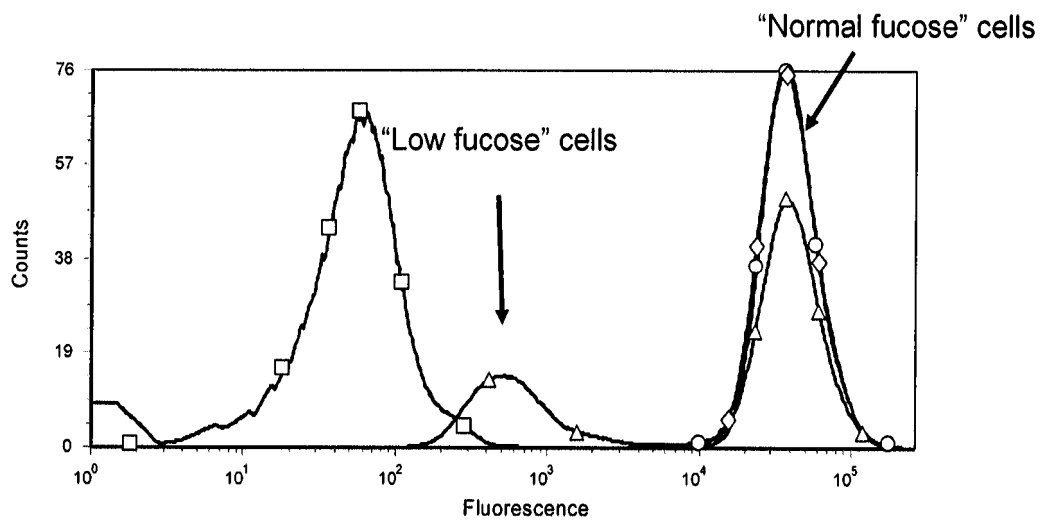


FIG. 7A

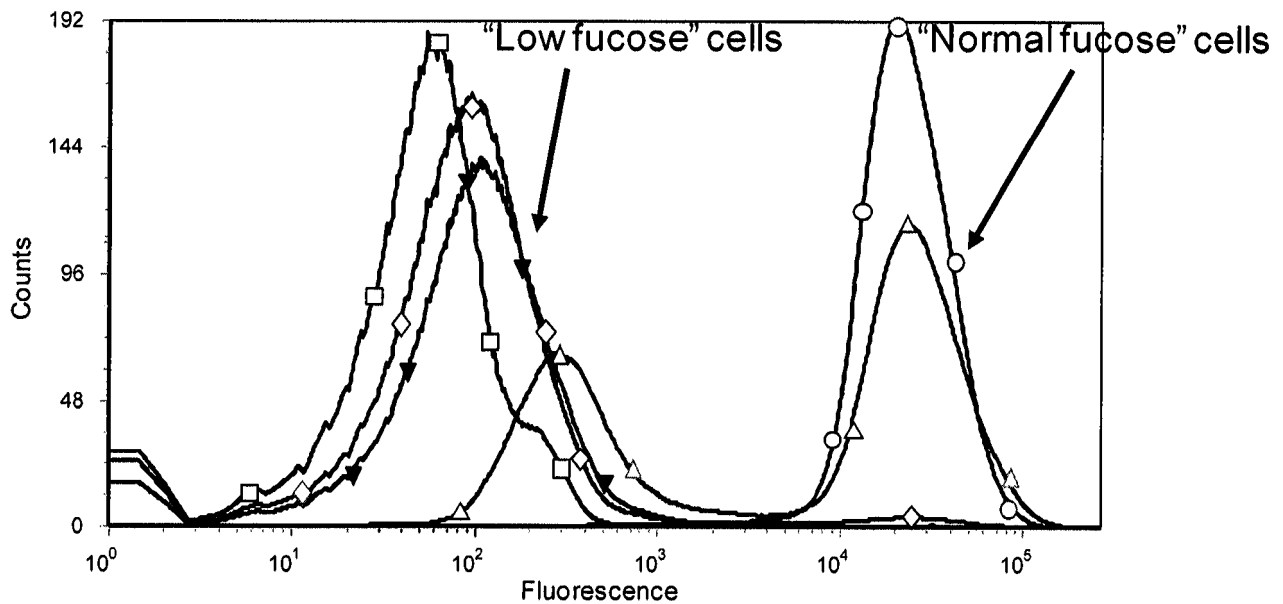


FIG. 7B

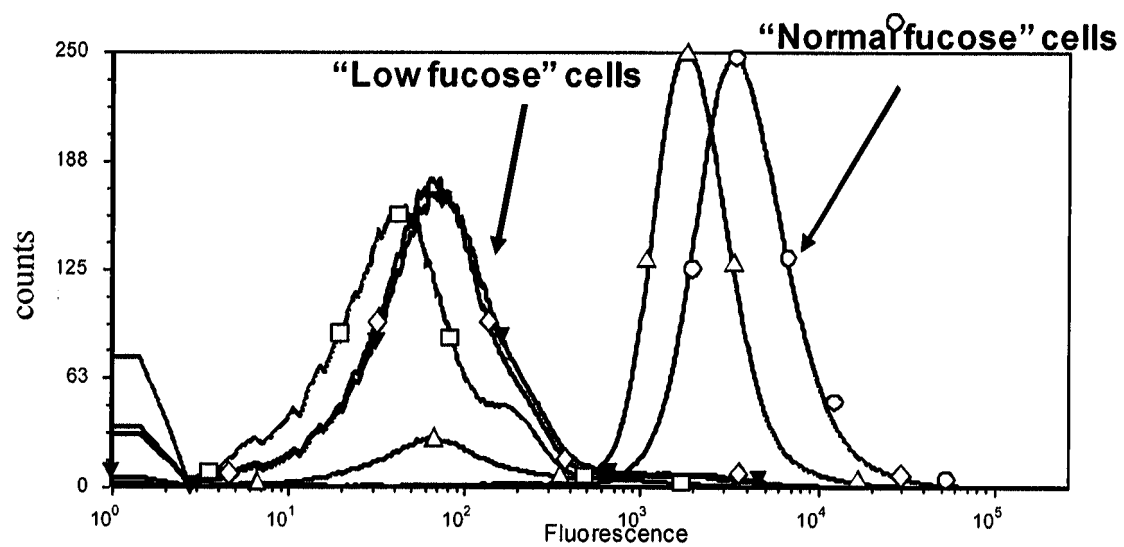


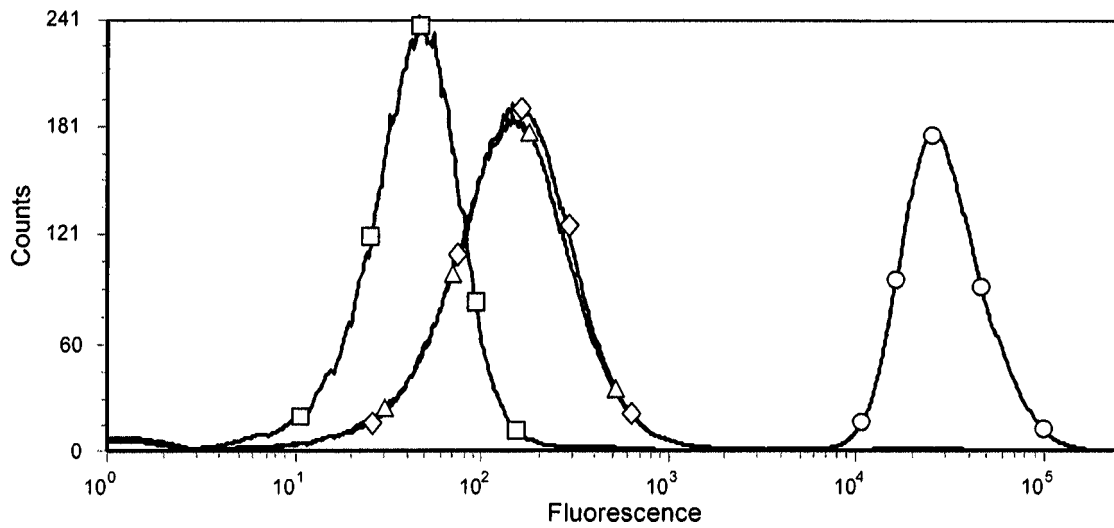
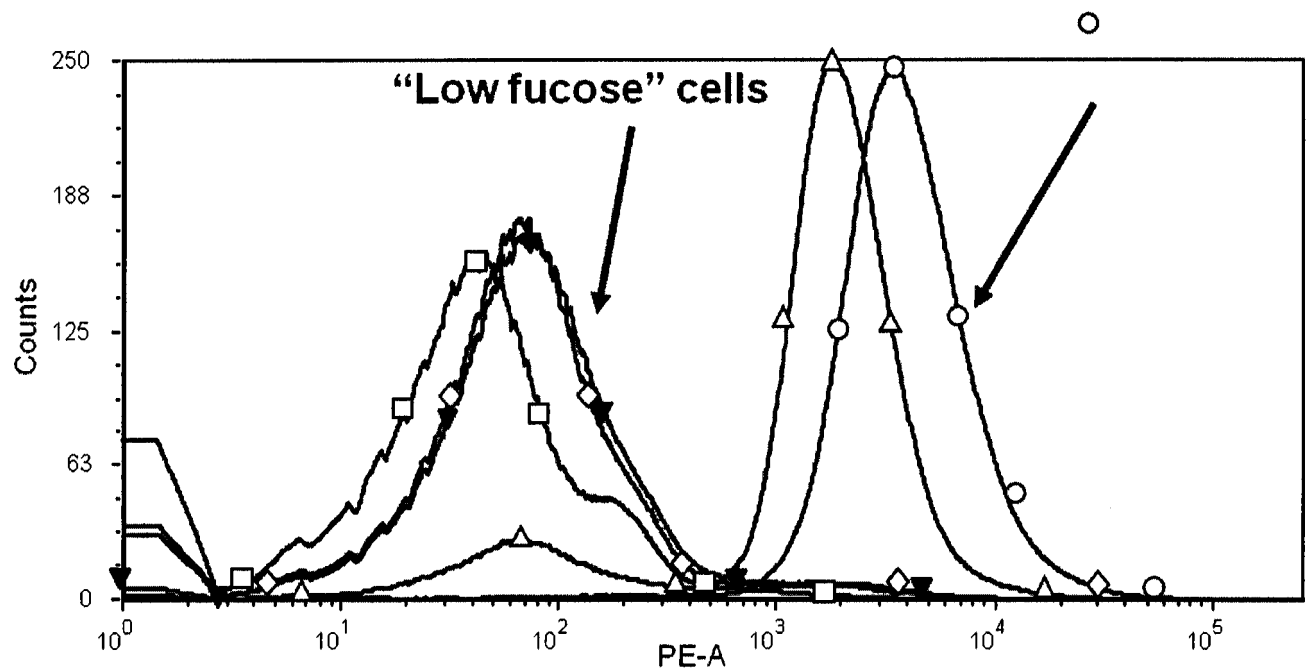
FIG.8A**FIG.8B**

FIG. 9

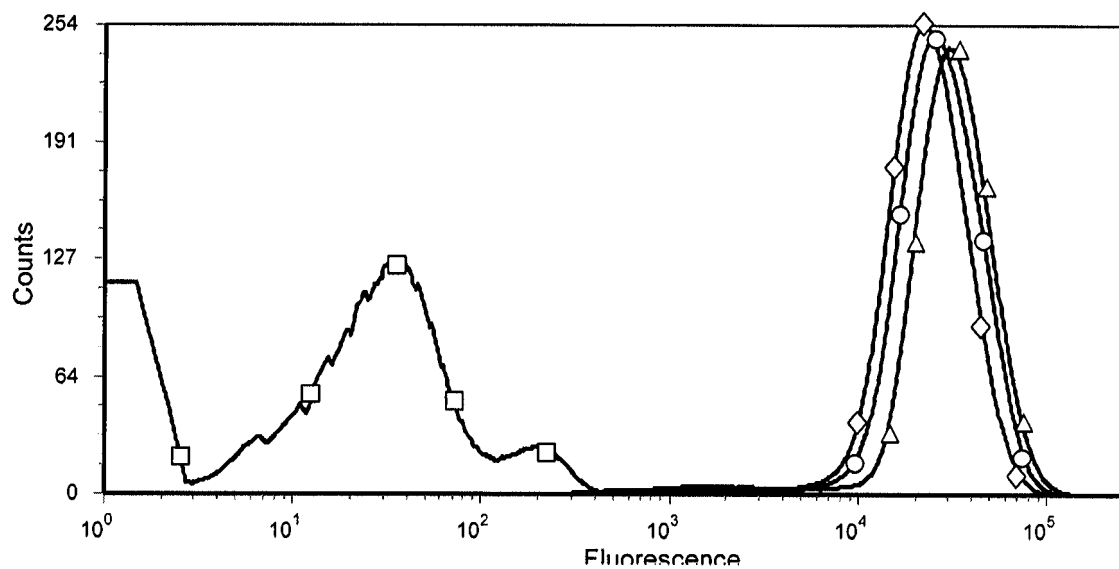


FIG. 10

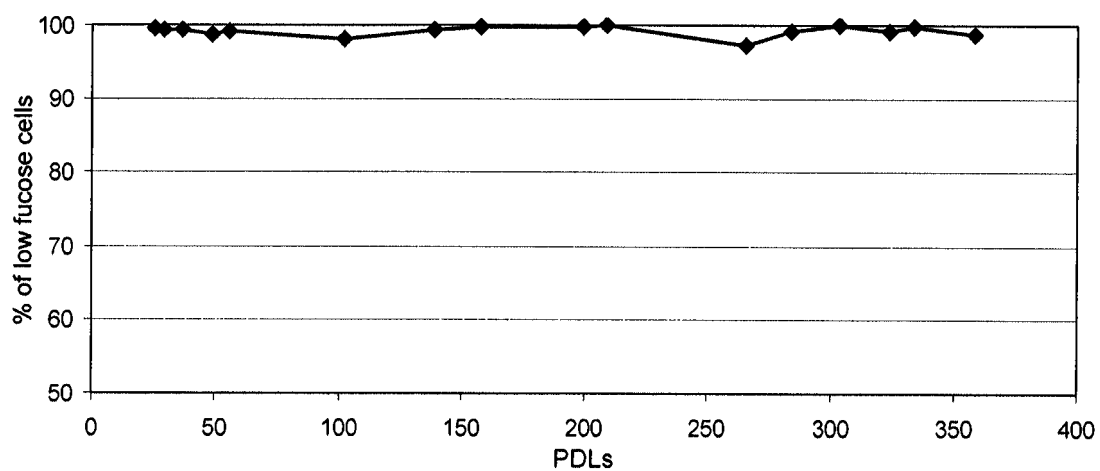
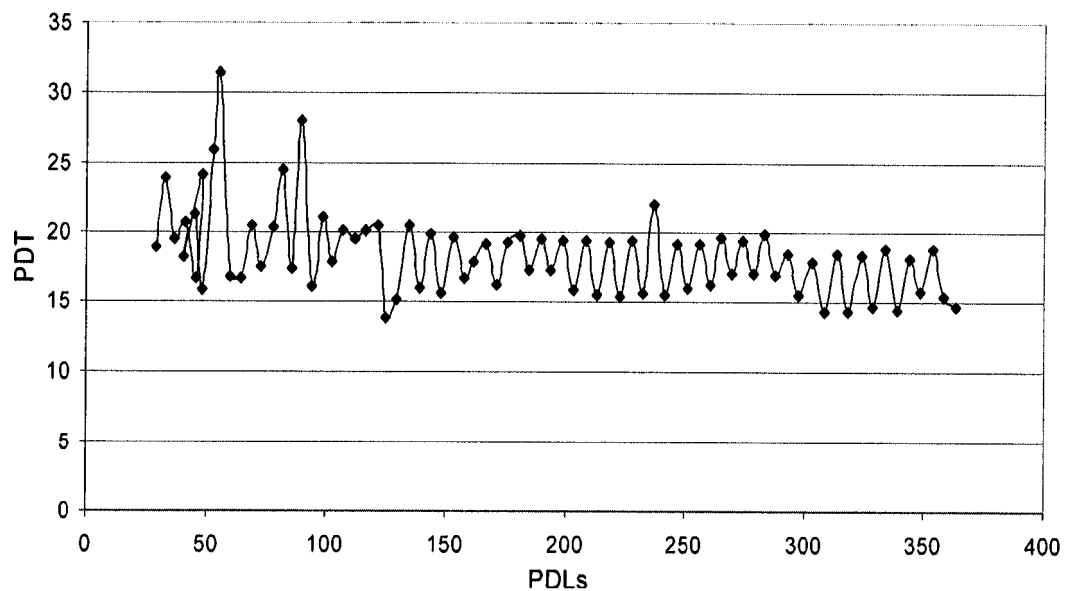
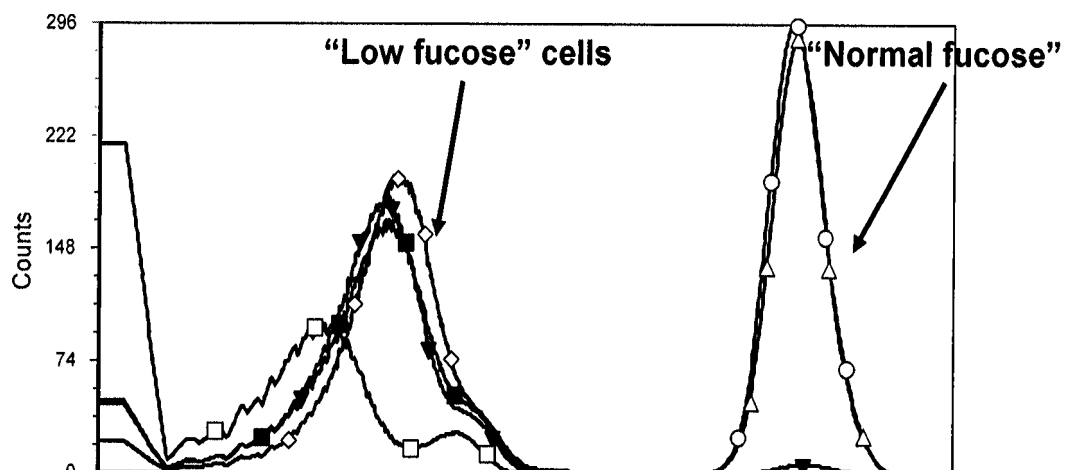


FIG. 11**FIG.12**

10/ 32

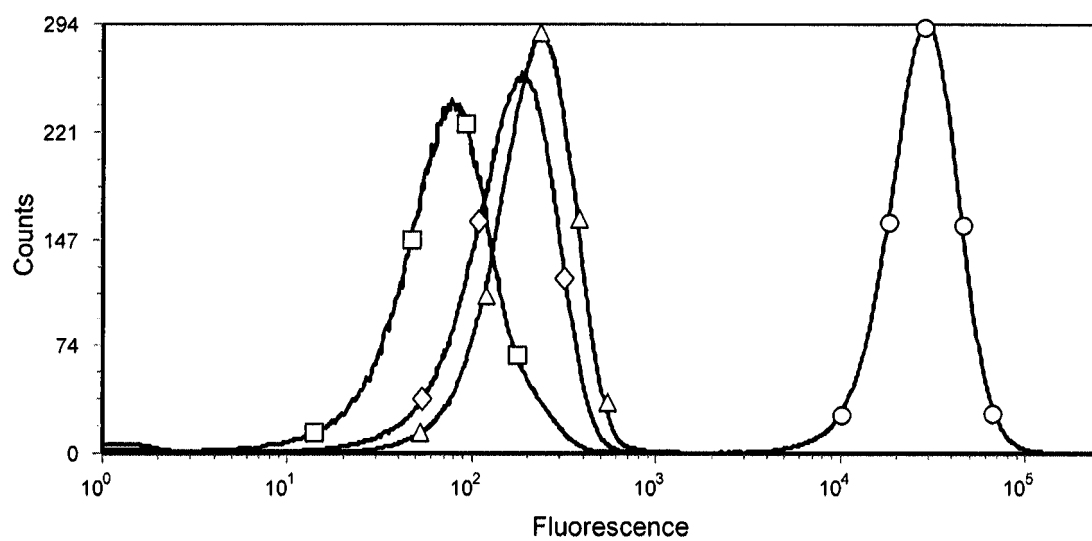
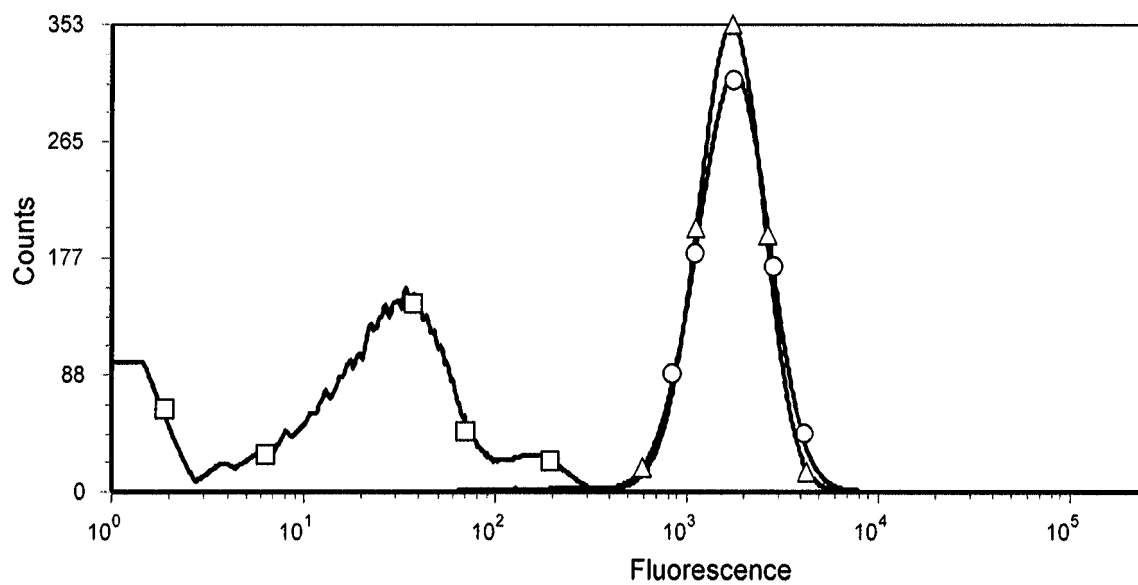
FIG. 13**FIG. 14**

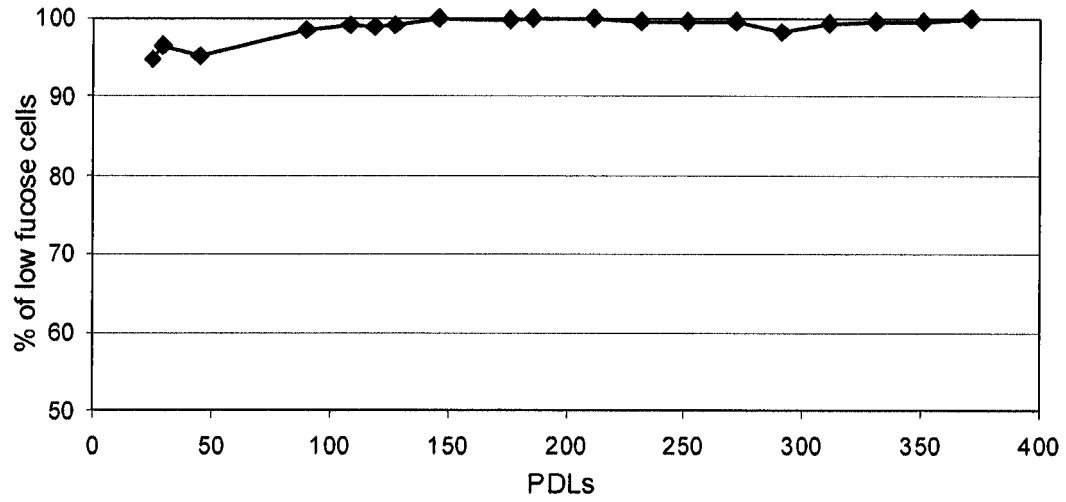
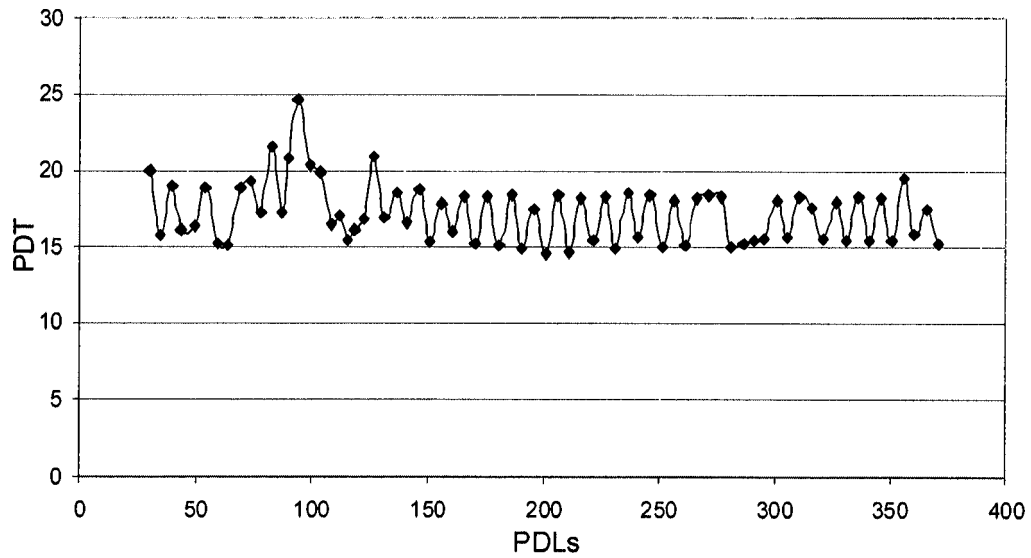
FIG.15**FIG. 16**

FIG. 17

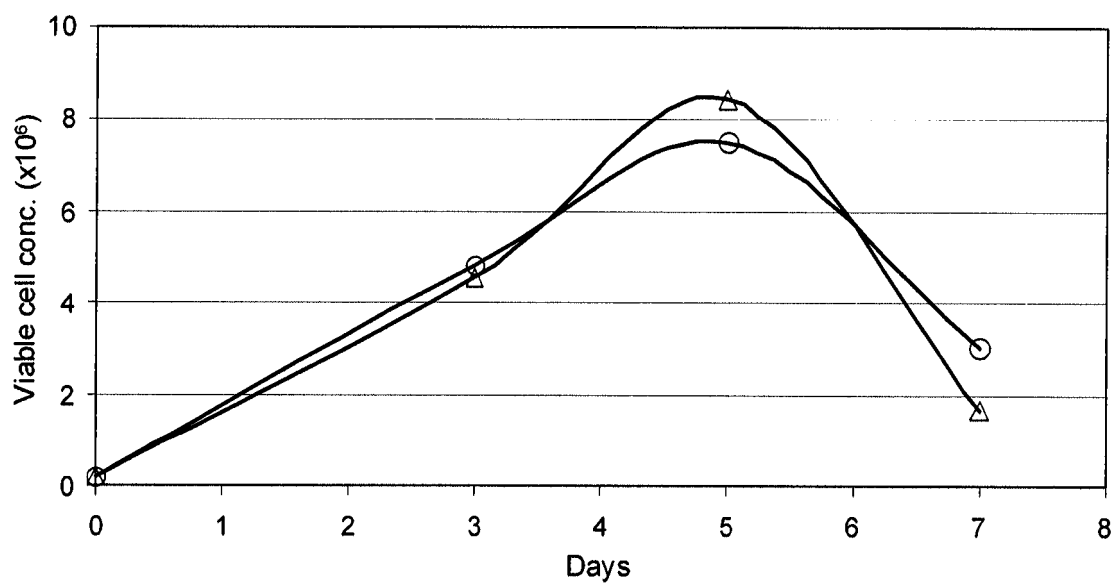


FIG 18

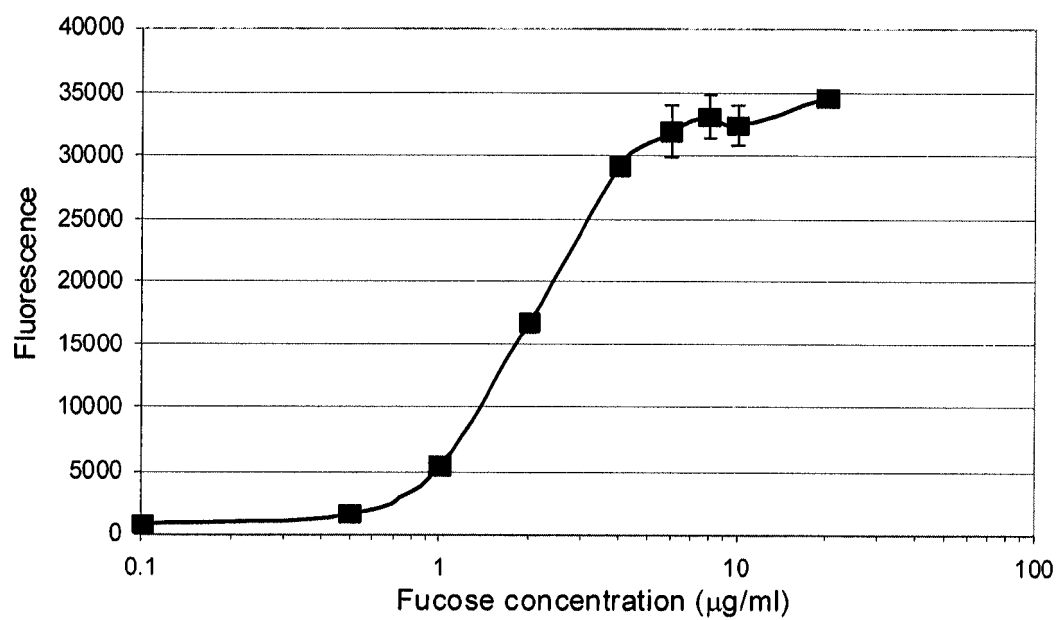


FIG. 19A

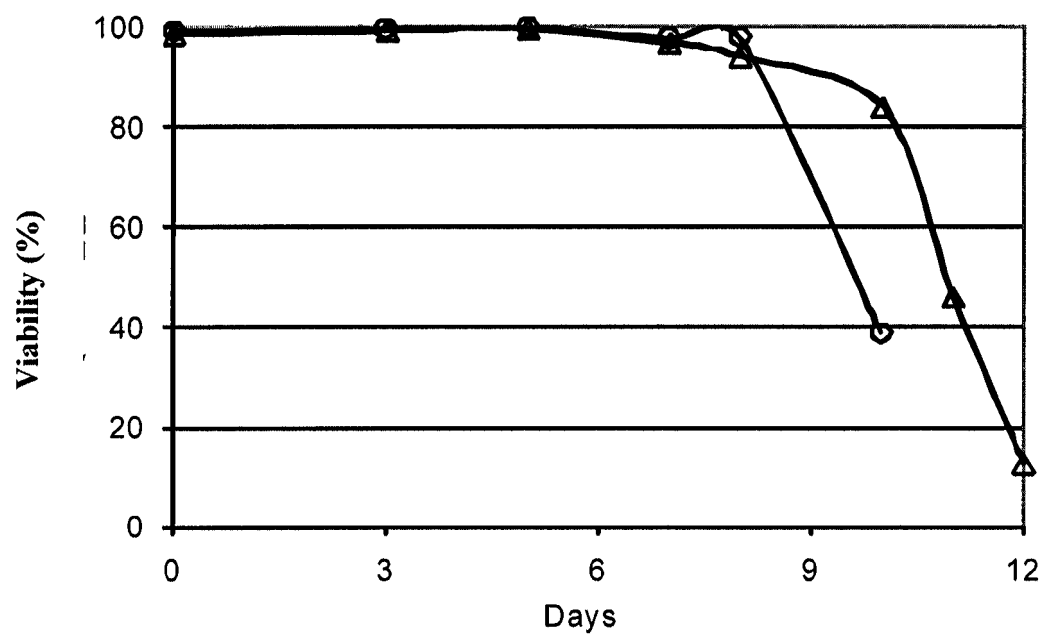


FIG 19B

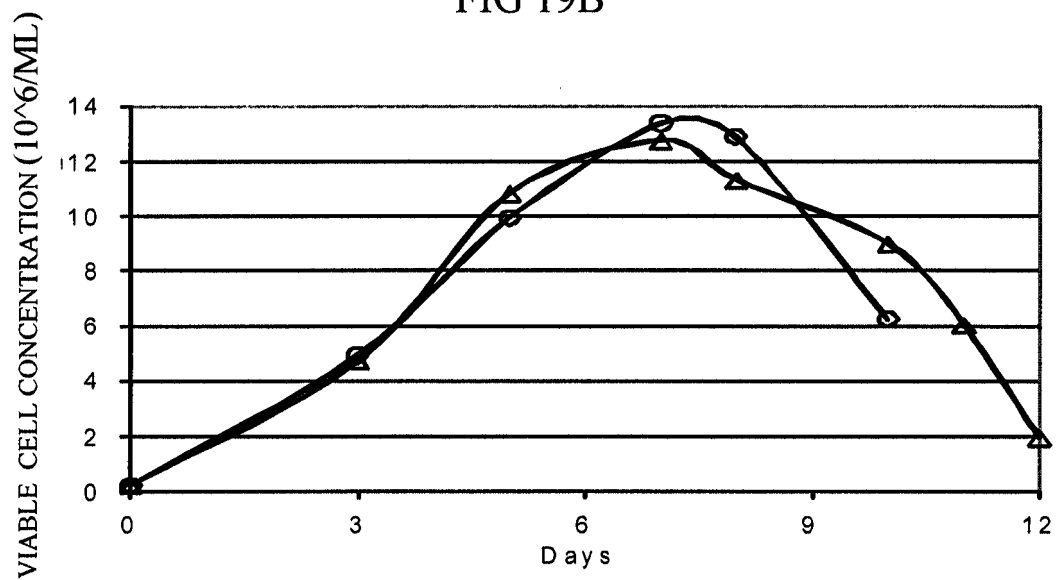


FIG. 19C

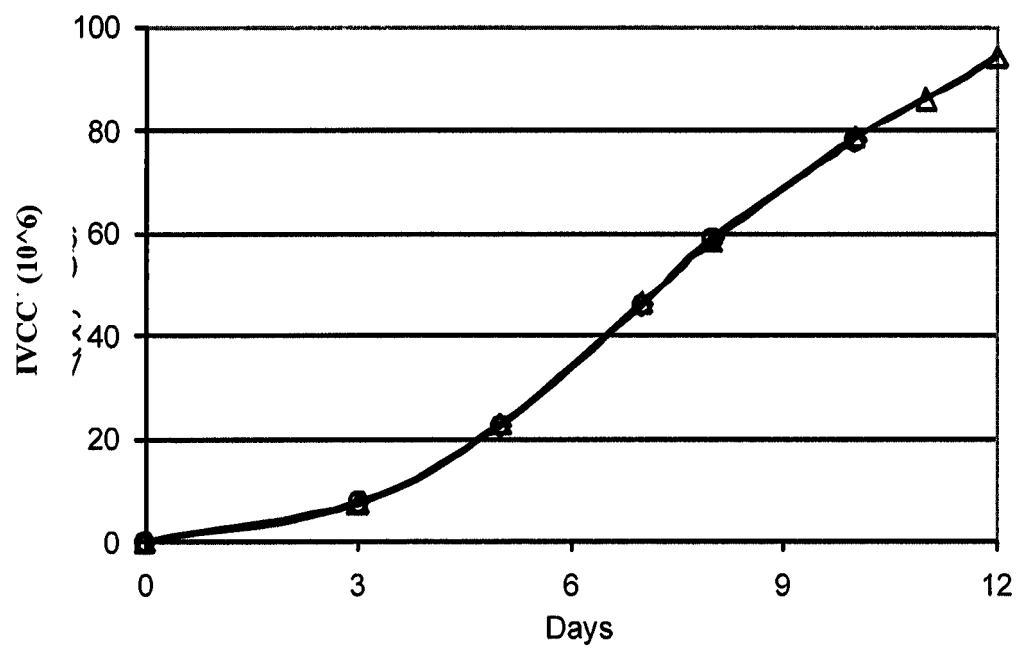


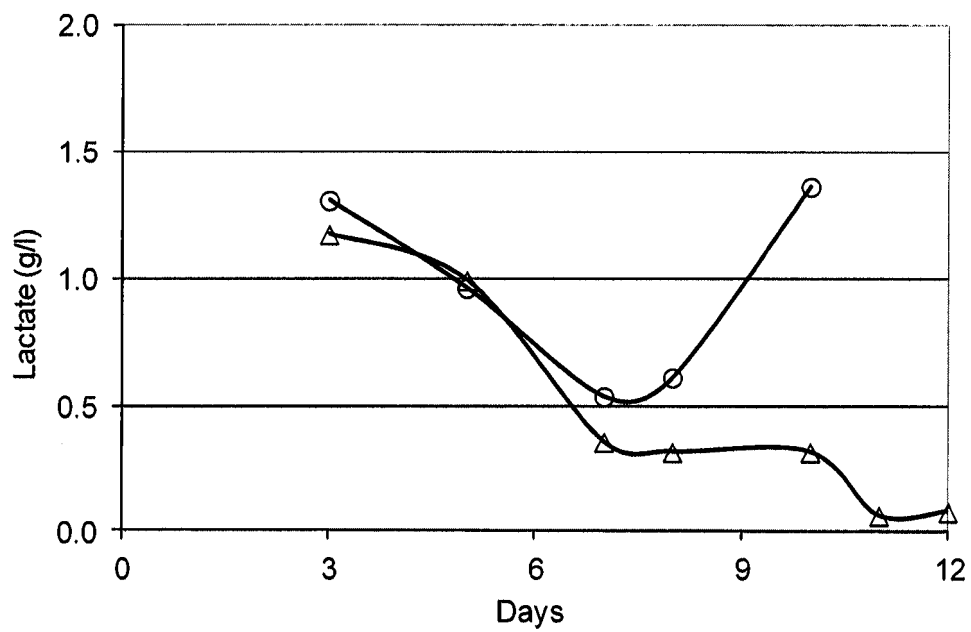
FIG.19D

FIG 20

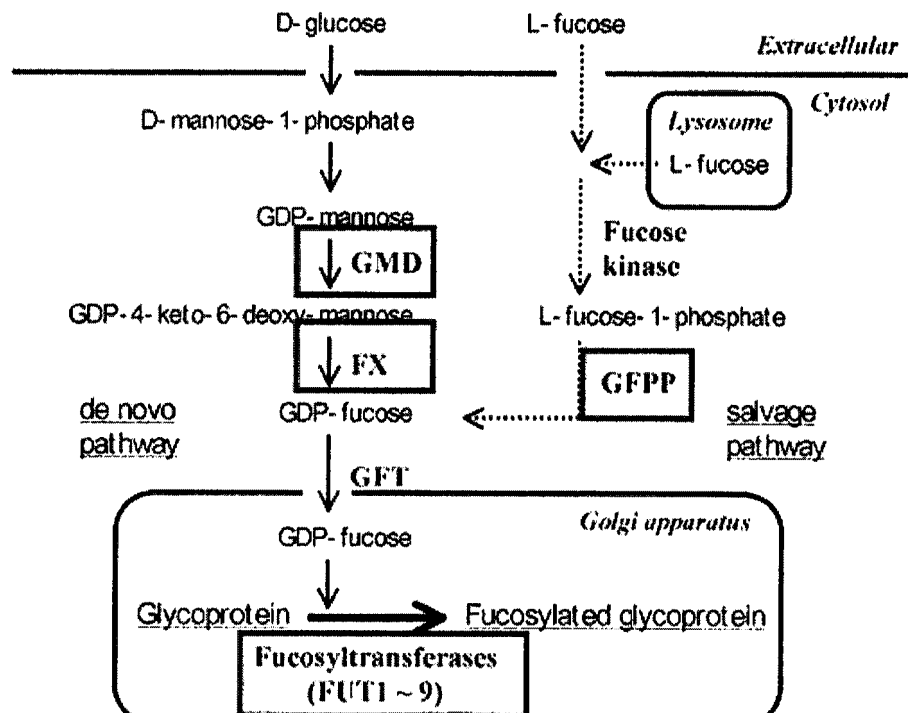
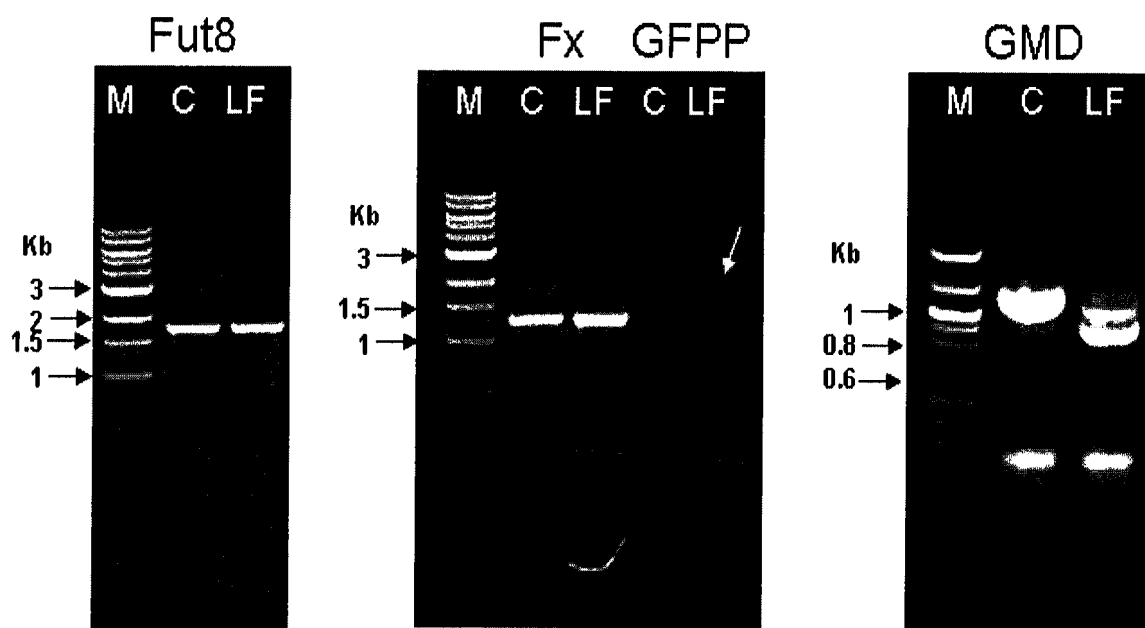


FIG. 21



FIGs.22A-B

A

GMD (Full)	1	mahapascpsrnsrgdgdkgkprkvalitgitgqdgssylaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD SV1	1	mahapascpsrnsrgdgdkgkprkvalitgitgqdgssylaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD (Full)	81	klhygdltdstclvkiinevkpteiylnlgaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD SV1	241	klhygdltdstclvkiinevkpteiylnlgaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD (Full)	161	kvqeipqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgglecfs1
GMD SV1	481	kvqeipqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgglecfs1
GMD (Full)	241	gnldakrdwghakdyveamwlmqlndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD SV1	721	gnldakrdwghakdyve----- <i>Deletion of Exon 8 and Exon 9 in SV1</i>
GMD (Full)	321	lkyyrptevedflqgdcskaqqklnwkprvafdelvremvqadvelmrtnpna
GMD SV1	772	-----dflqgdcskaqqklnwkprvafdelvremvqadvelmrtnpna

B

GMD (Full)	1	mahapascpsrnsrgdgdkgkprkvalitgitgqdgssylaefllekgyevhgivrsssfntgriehlyknpqahiegnm
GMD SV2	1	mahapascpsrnsrgdgdkgkprkvalitgitgqdgssylaefllekgye----- <i>Deletion of Exon 3 and Exon 4 in SV2</i>
GMD (Full)	81	klhygdltdstclvkiinevkpteiylnlgaqshvkiisfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD SV2	148	-----isfldaeytadvvgvgtlrlldaiktcglinsvkfyqastseylg
GMD (Full)	161	kvqeipqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgglecfs1
GMD SV2	283	kvqeipqkettpfyprspygaaklyaywivvnfreaynlfavngilfnhesprrganfvtrkiersvakiylgglecfs1
GMD (Full)	241	gnldakrdwghakdyveamwlmqlndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD SV2	523	gnldakrdwghakdyveamwlmqlndepedfviatgevhsvrefveksfmhigktivwegknenevgrcketgkihvtvd
GMD (Full)	321	lkyyrptevedflqgdcskaqqklnwkprvafdelvremvqadvelmrtnpna
GMD SV2	763	lkyyrptevedflqgdcskaqqklnwkprvafdelvremvqadvelmrtnpna

FIG. 23A

GMD SV1	1	atggctcacgctcccgctagctgcccagctccaggaactctggggacggcgataagggcaagccaggaagggtggcgctcatcacgggc
GMD SV2	1	atggctcacgctcccgctagctgcccagctccaggaactctggggacggcgataagggcaagccaggaagggtggcgctcatcacgggc
GMD SV1	91	atcacggccaggatggctcatacttggcagaattcctgctggagaaaggatacagggttcattggaattgtacggcgatccagttcattt
GMD SV2	91	atcacggccaggatggctcatacttggcagaattcctgctggagaaaggatacag-----
GMD SV1	181	aatacaggtcgaattgaacatttatataagaatccacaggctcatattgaaggaaacatgaagttgcactatggtagctcaccgacagc
GMD SV2		-----
GMD SV1	271	acctgcctagtaaaaaatcatcaatgaagtcaaacctacagagatctacaactcttggtgccagagccatgtcaagatttcctttgactta
GMD SV2	146	----- <i>BglII</i> -----agatttcctttgactta
GMD SV1	361	gcagagtacactgcagatggtgatggagttggcaccttgcggcttctggatgcaatgaagacttggccttataaatctgtgaagttc
GMD SV2	163	gcagagtacactgcagatggtgatggagttggcaccttgcggcttctggatgcaatgaagacttggccttataaatctgtgaagttc
GMD SV1	451	taccaggcctcaactagtgaactgtatggaaaagtgcagaaaataccccagaaagagaccaccctttctatccaaggtcgccctatgga
GMD SV2	253	taccaggcctcaactagtgaactgtatggaaaagtgcagaaaataccccagaaagagaccaccctttctatccaaggtcgccctatgga
GMD SV1	541	gcagccaaactttatgcctattggattgtagtgaactttcgagaggcttataatctcttgcgggtgaacggcatctcttcaatcatgag
GMD SV2	343	gcagccaaactttatgcctattggattgtagtgaactttcgagaggcttataatctcttgcgggtgaacggcatctcttcaatcatgag
GMD SV1	631	agtcttagaagaggagctaattttgttactcgaaaaatagccggtcagtagctaagatttaccttggacaactggaatgttccagtttg
GMD SV2	433	agtcttagaagaggagctaattttgttactcgaaaaatagccggtcagtagctaagatttaccttggacaactggaatgttccagtttg
GMD SV1	721	ggaaatctggagcgcacaaacgagactggggccatgccaaggactatgtcgagg-----
GMD SV2	523	ggaaatctggagcgcacaaacgagactggggccatgccaaggactatgtcgaggctatgtggctgatgtacaaaaatgatgaaccagaggac
GMD SV1		-----
GMD SV2	613	ttgtcatagctactggggaagttcatagtgtccgtgaatttgttgagaaatcattcatgcacattggaagaccatttgtgtgggaaggac
GMD SV1	773	----- <i>XmnI</i> -----ac
GMD SV2	703	aagaatgaaaatgaagtgggcagatgtaaagagaccggcaaaatttcatgtgactgtggatctgaaatactaccgaccaactgaagtggac
GMD SV1	775	ttcttgcaggaggagactgtctccaaggcgcagcagaaactgaactggaagcccccgcgttgcctttgacgagctggtgagggagatgggtgcaa
GMD SV2	793	ttcttgcaggaggagactgtctccaaggcgcagcagaaactgaactggaagcccccgcgttgcctttgacgagctggtgagggagatgggtgcaa
GMD SV1	865	gccgatgtggagctcatgagaaccaaccccaacgcctga
GMD SV2	883	gccgatgtggagctcatgagaaccaaccccaacgcctga

FIG. 23B

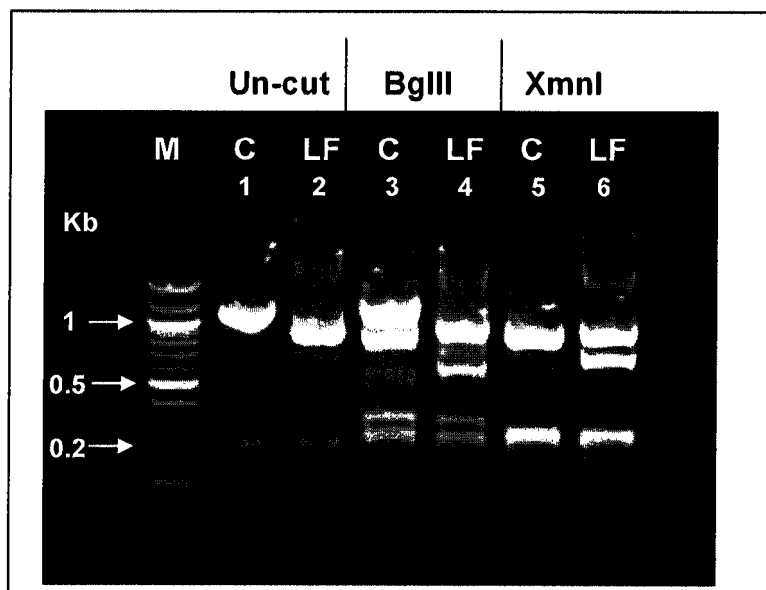


FIG. 24

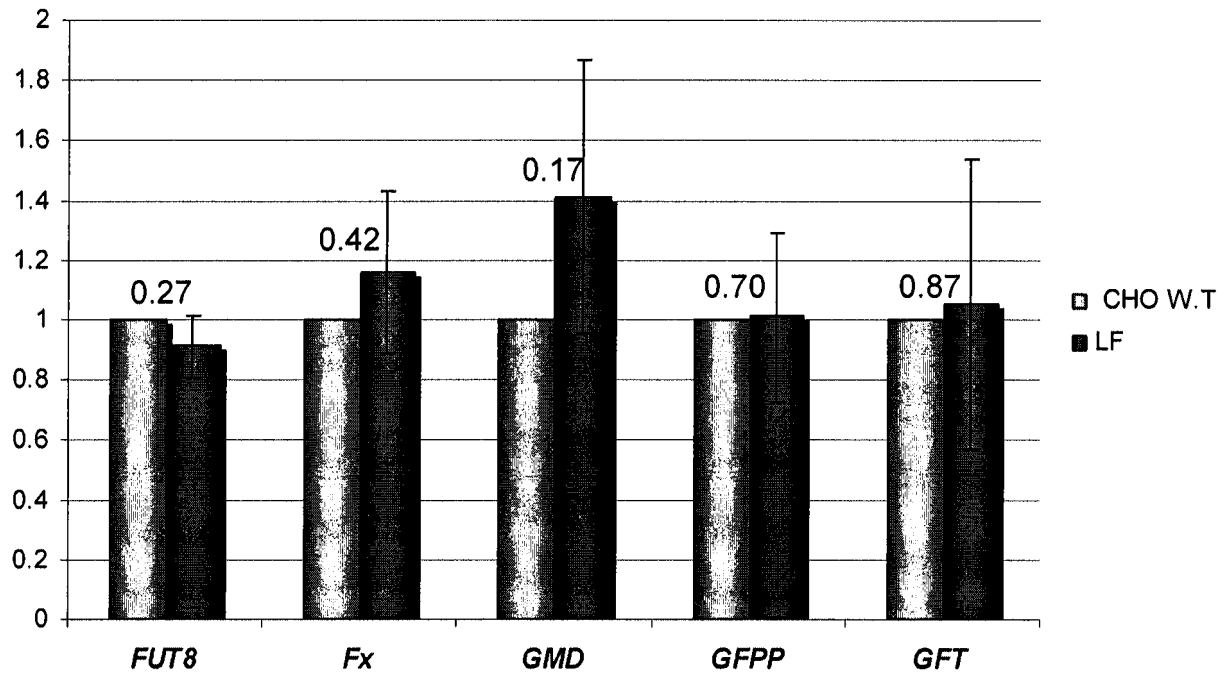


FIG. 25

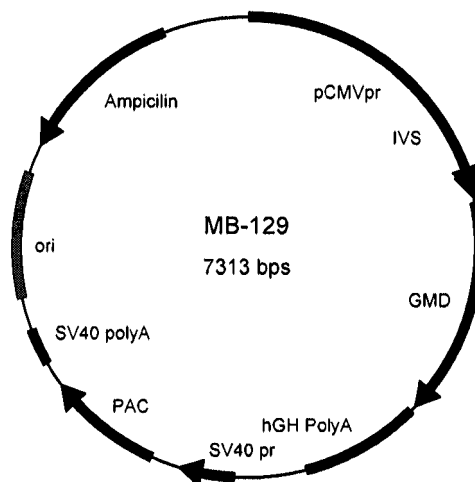


FIG.26

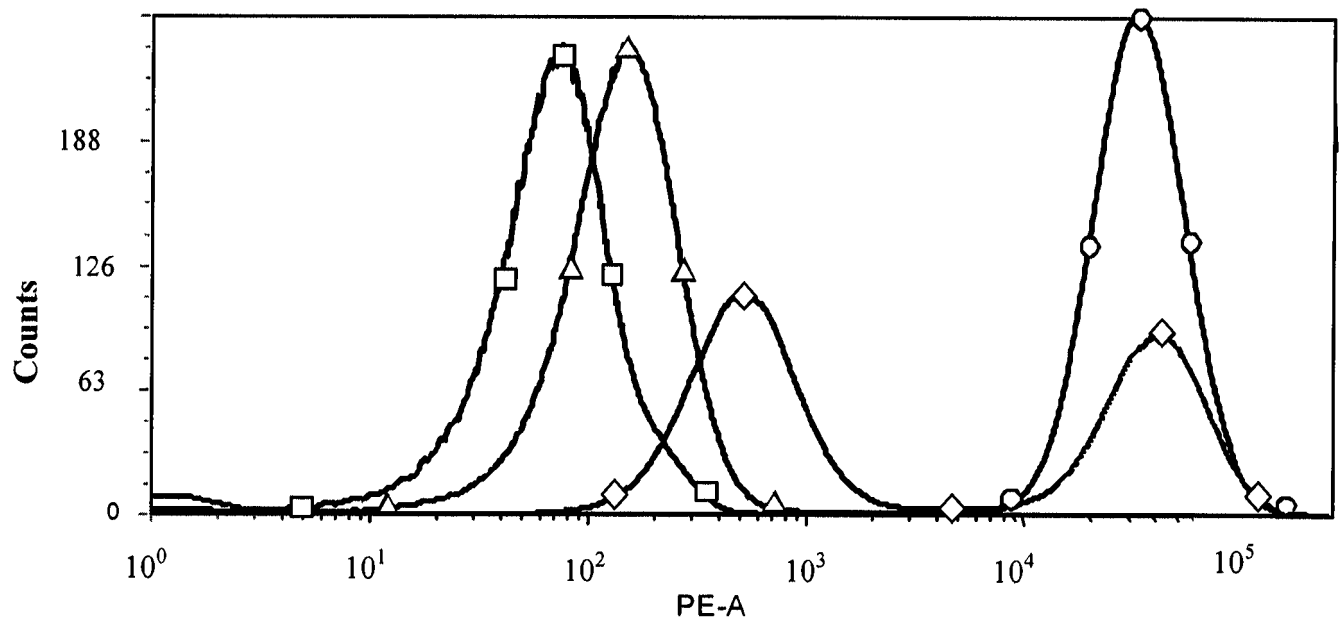


FIG.27

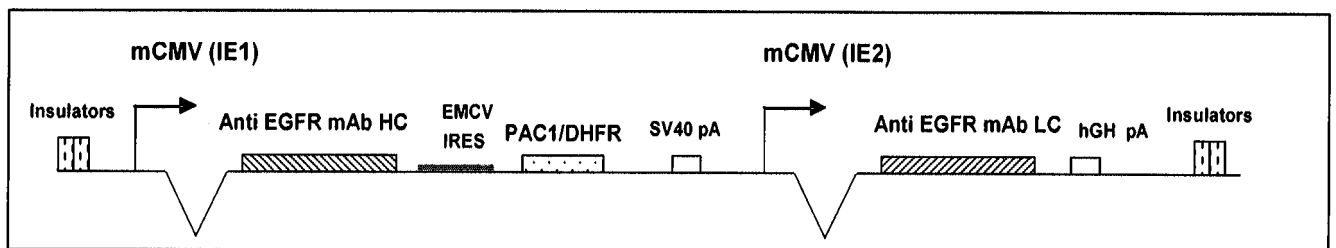


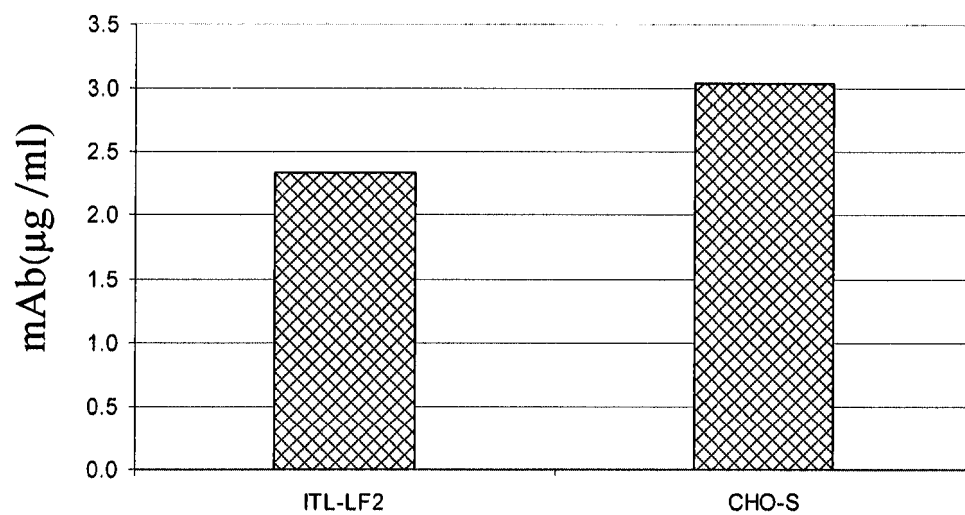
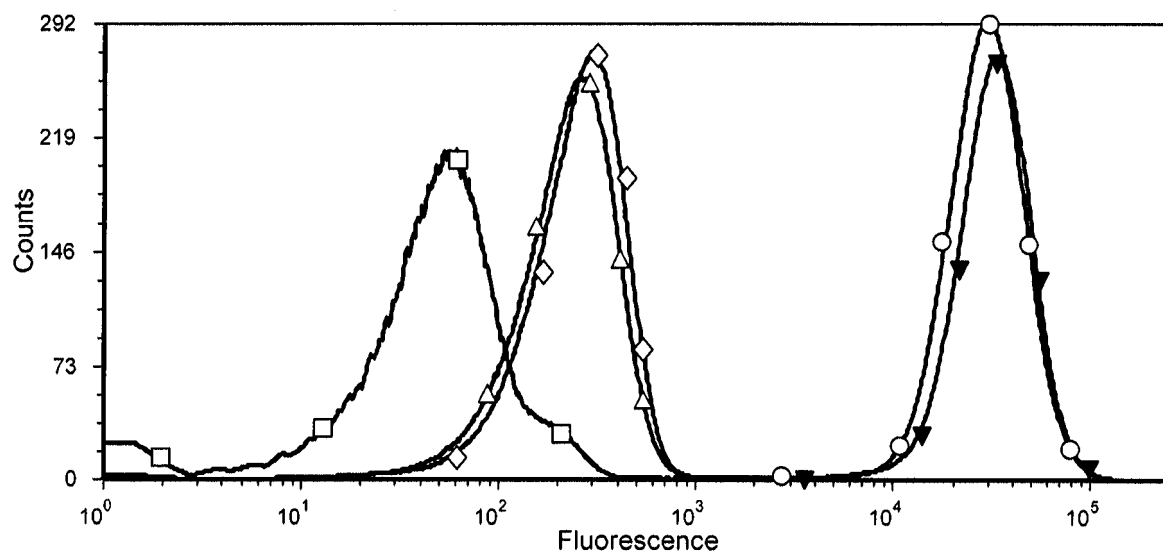
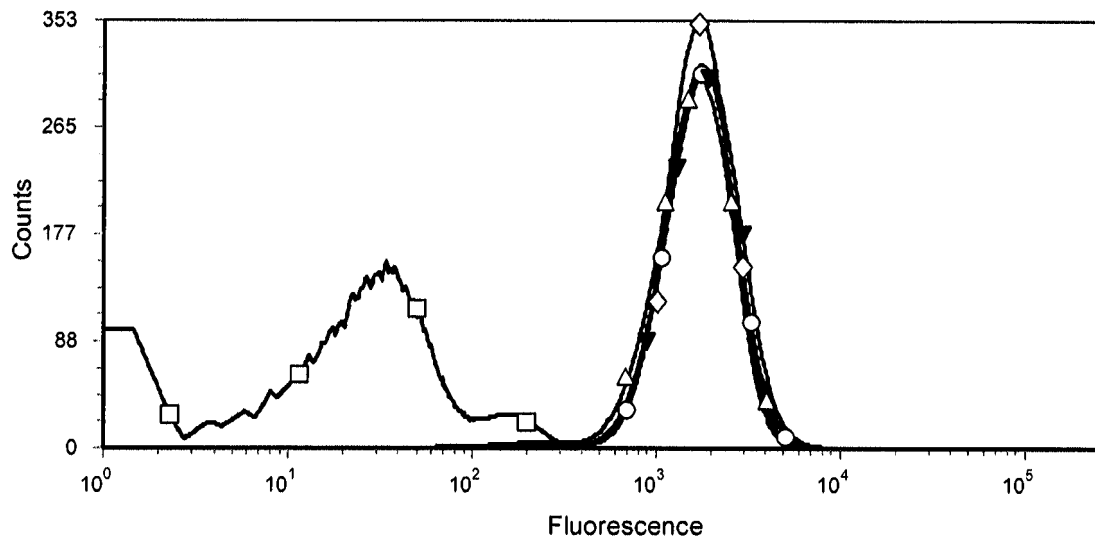
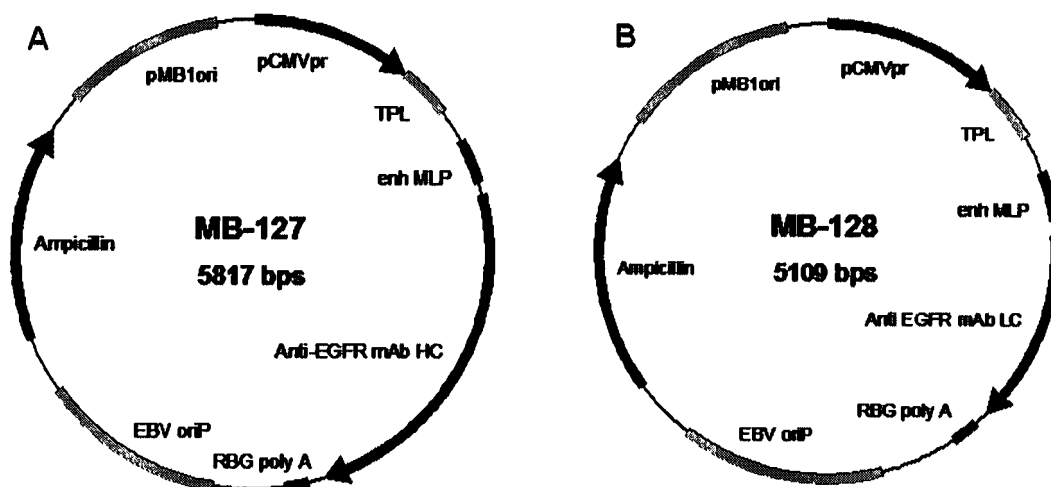
FIG.28**FIG. 29**

FIG. 30



FIGs. 31A-B



23/ 32

FIG.32

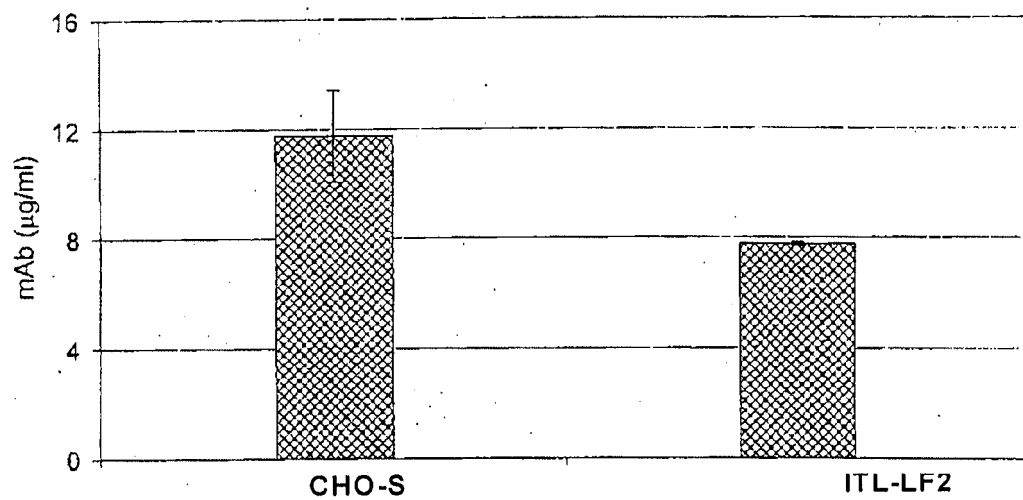


FIG. 33

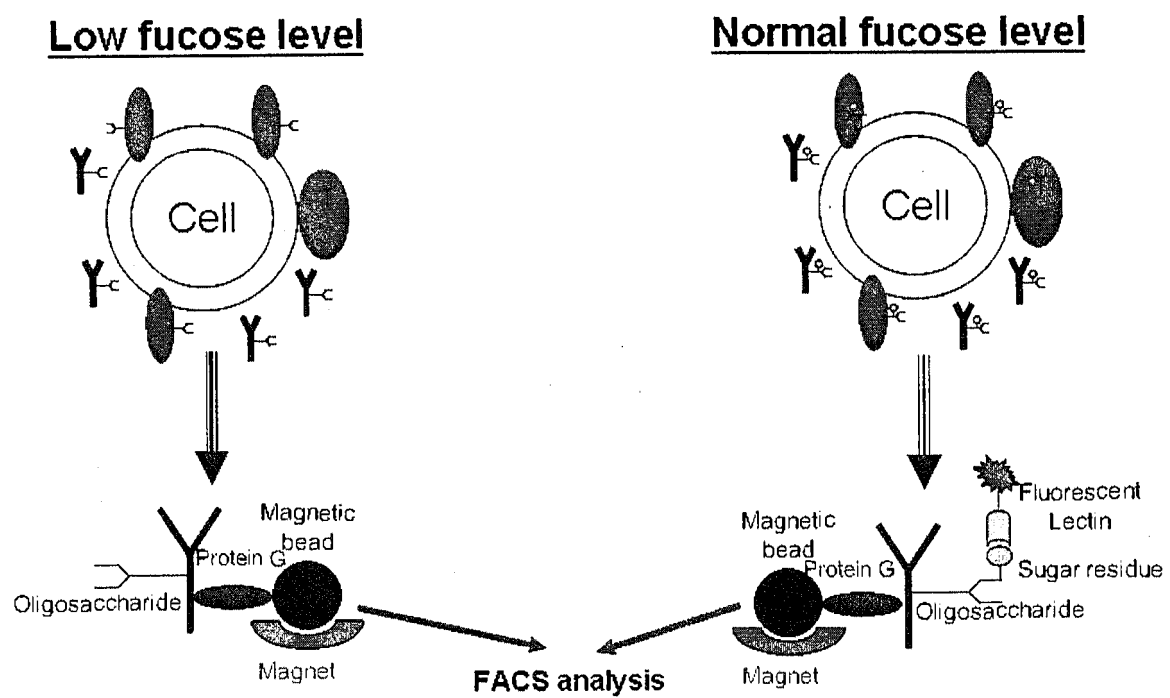


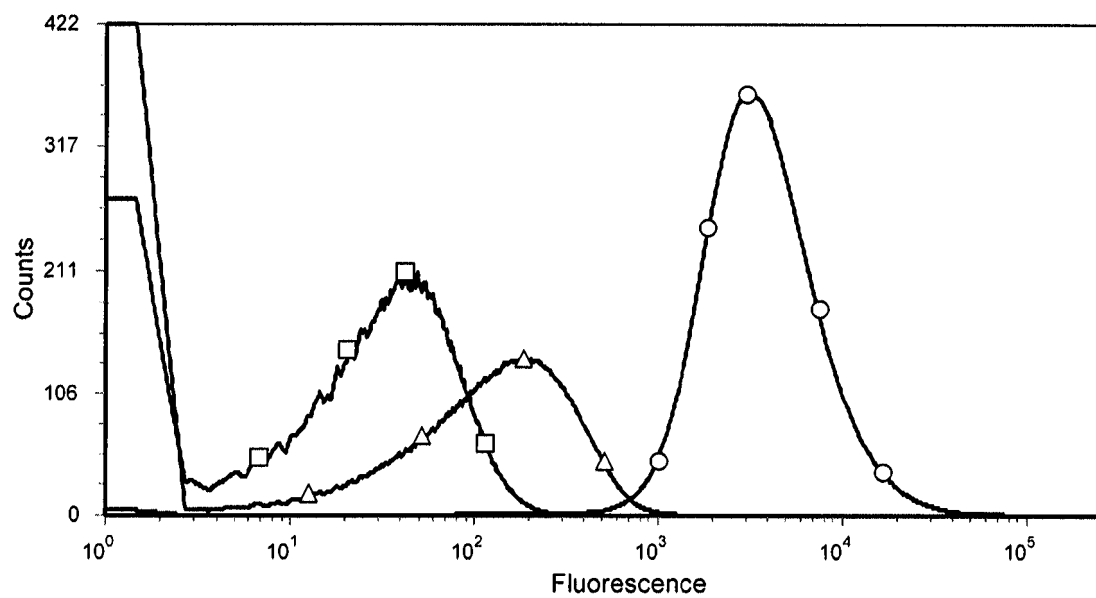
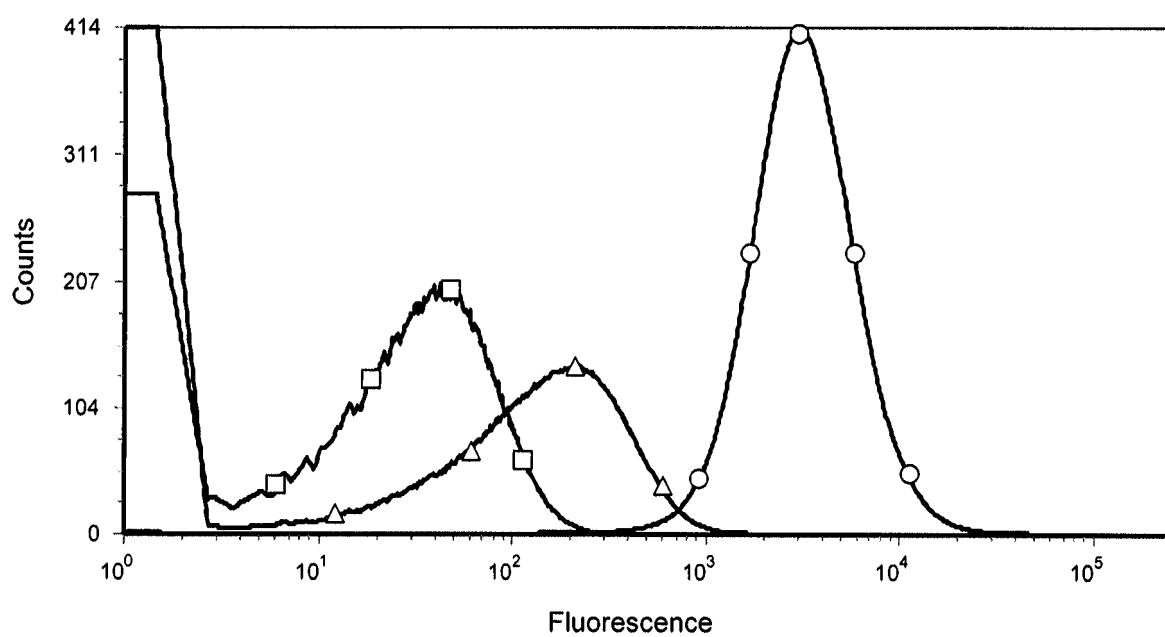
FIG. 34**FIG. 35**

FIG. 36

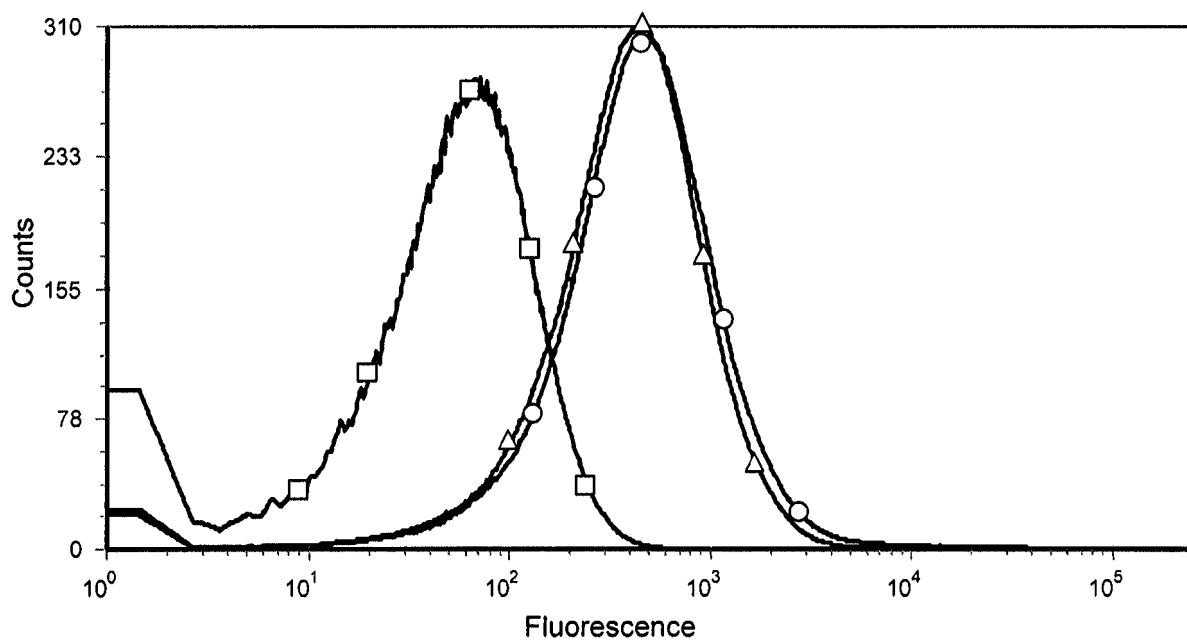


FIG. 37

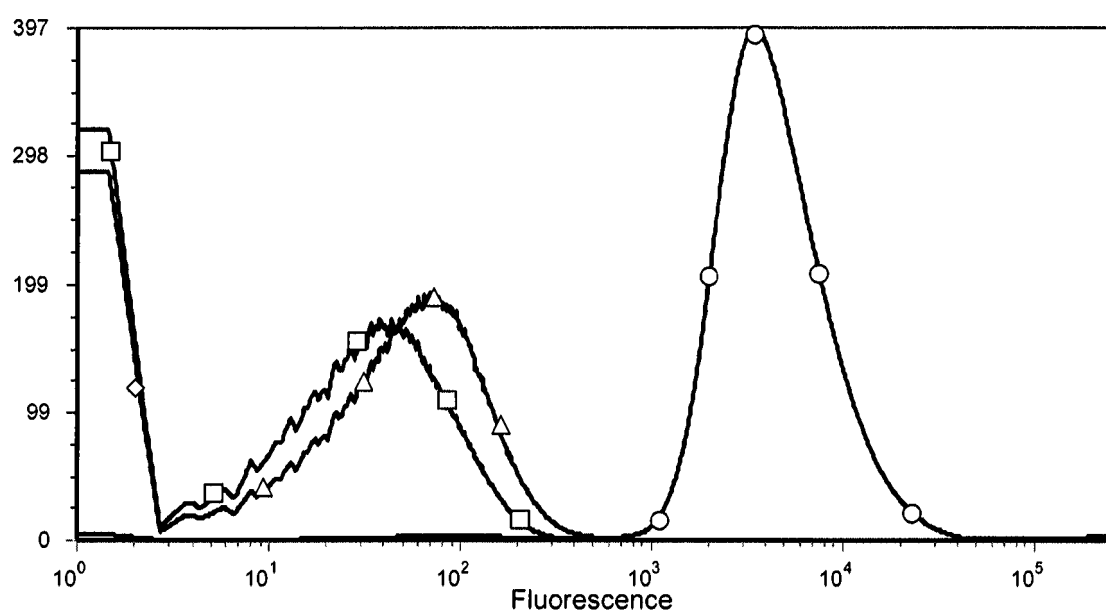


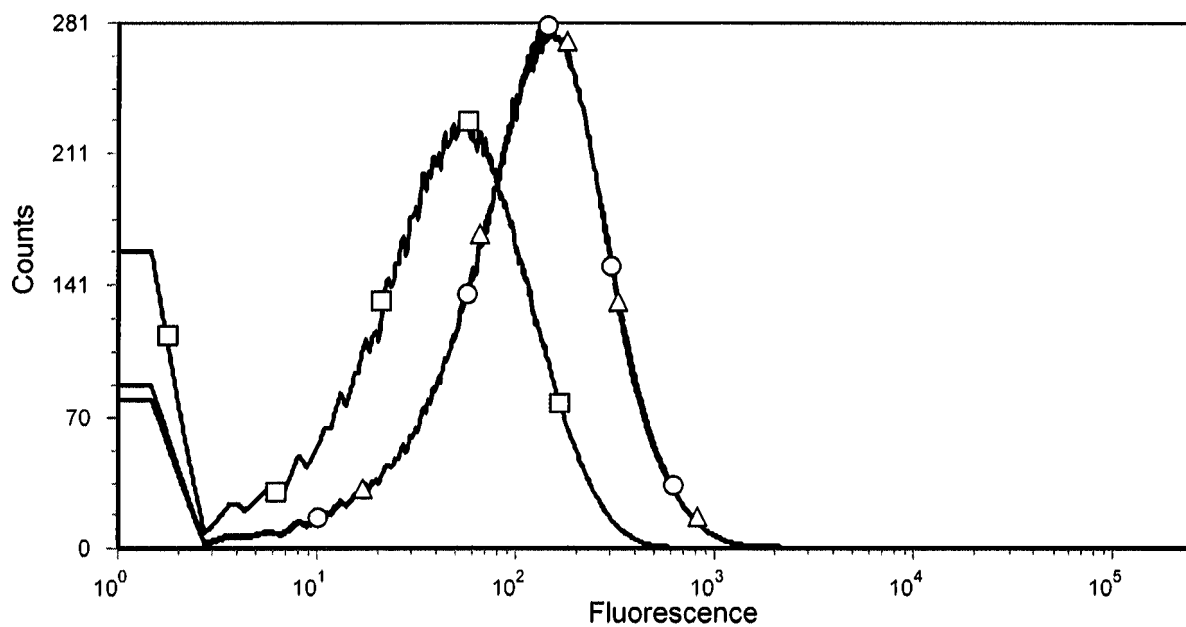
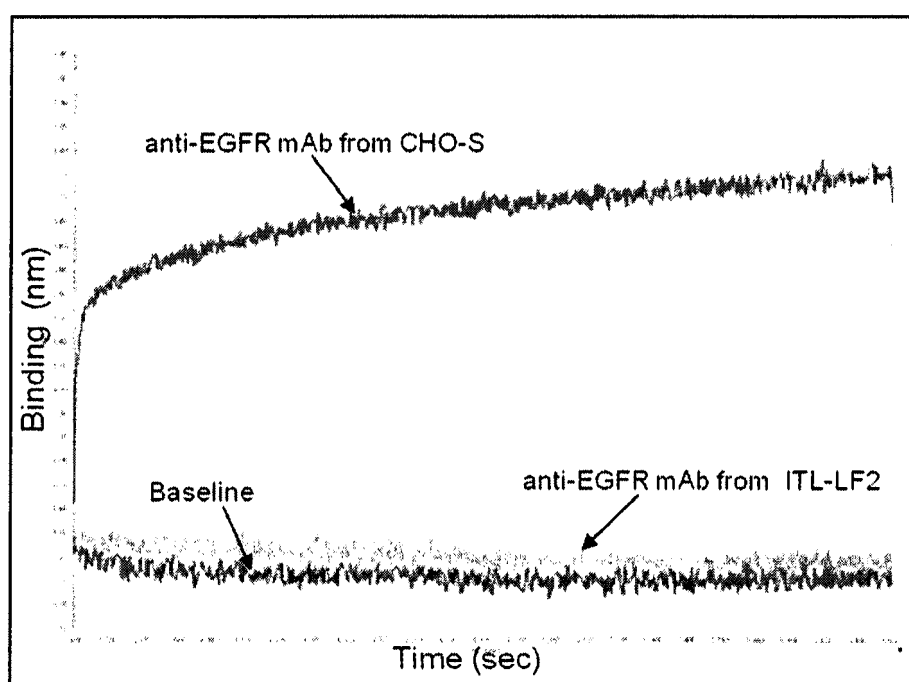
FIG. 38**FIG. 39**

FIG. 40

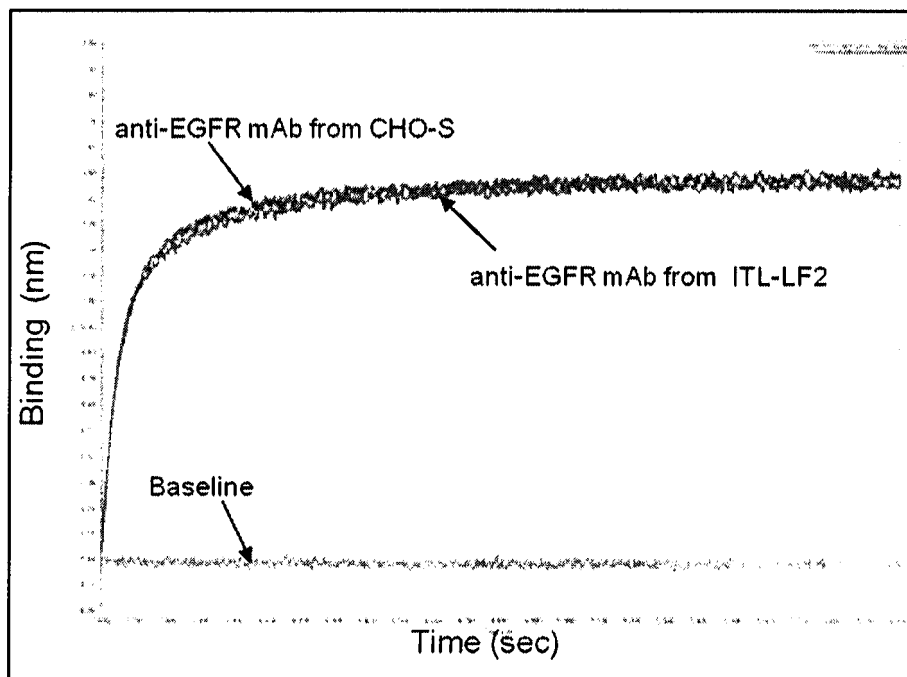
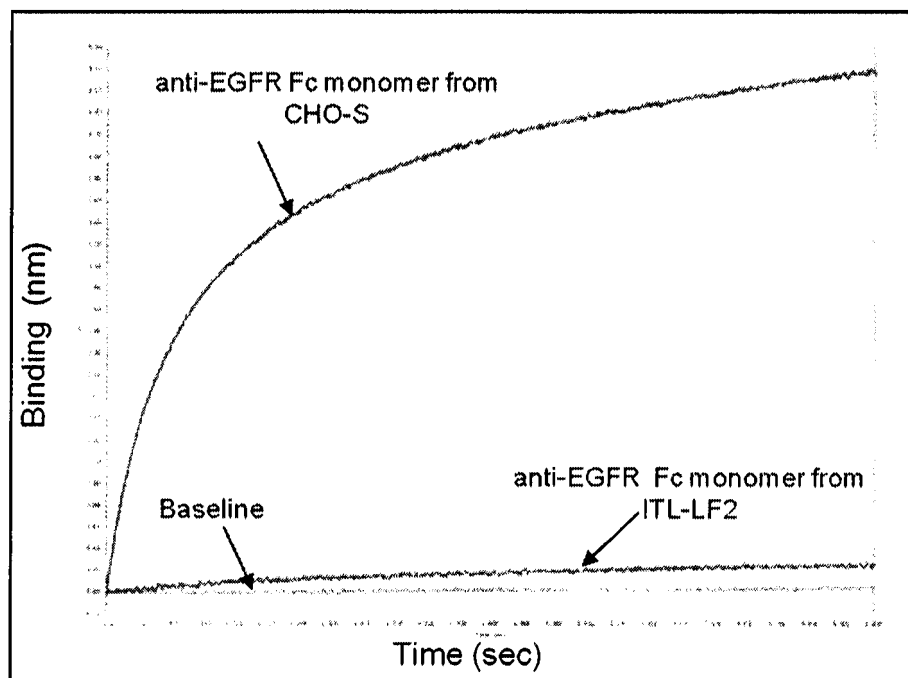


FIG. 41



28/ 32

FIG. 42

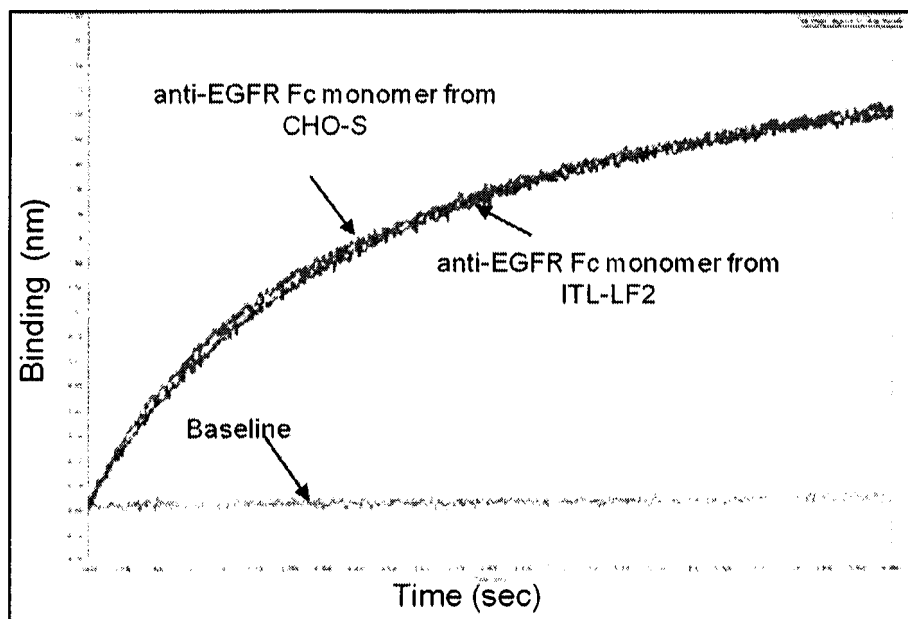


FIG. 43

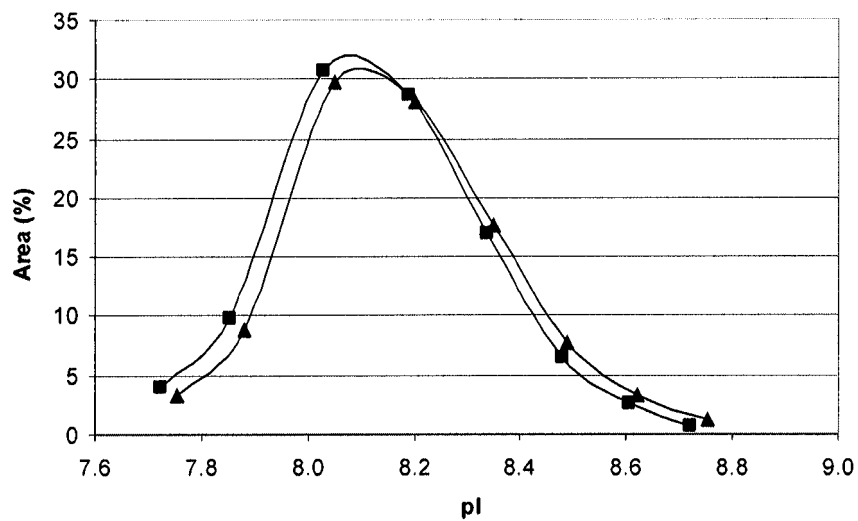


FIG. 44

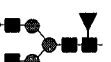
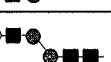
Sample	Glycan Structure	Relative abundance	Fucosylation Percentage
Normal Fucose CHO-S WT	 G0-F	25.5 %	100 %
	 G1-F	56.8 %	
	 G2-F	17.8 %	
Low Fucose ITL-LF2	 G0-F	45.9 %	0%
	 G1-F	49.0 %	
	 G2-F	5.1 %	

FIG. 45

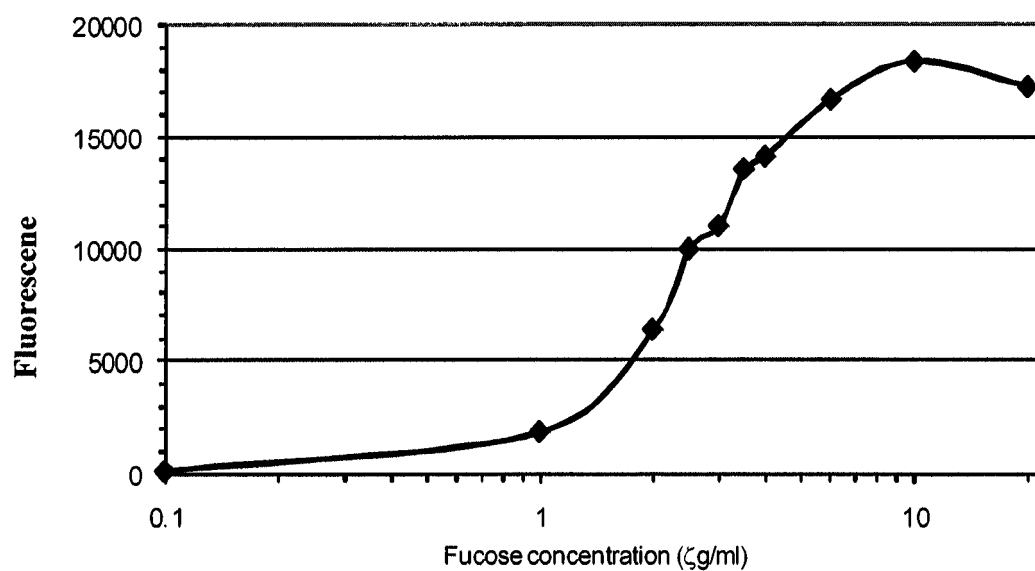
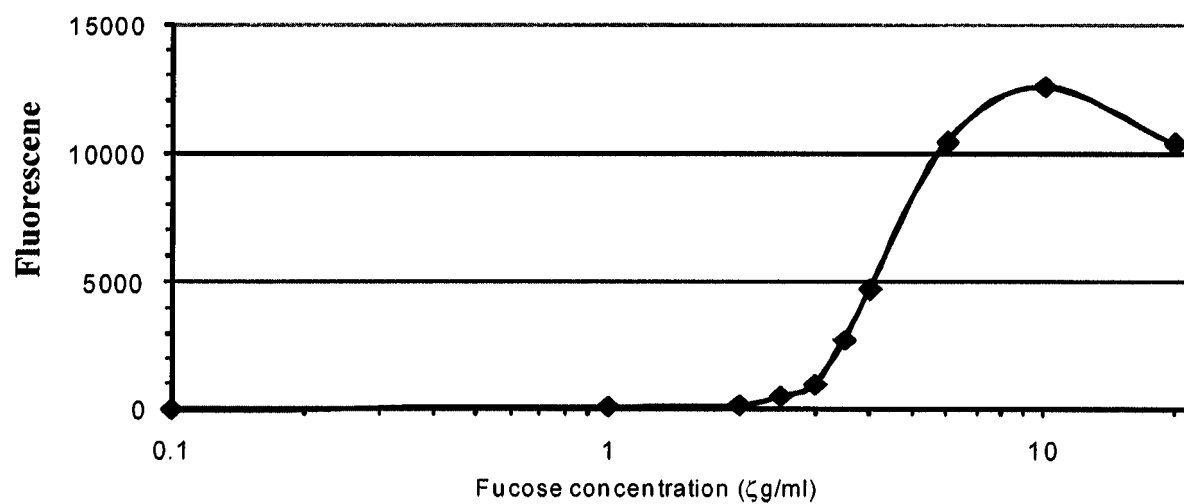
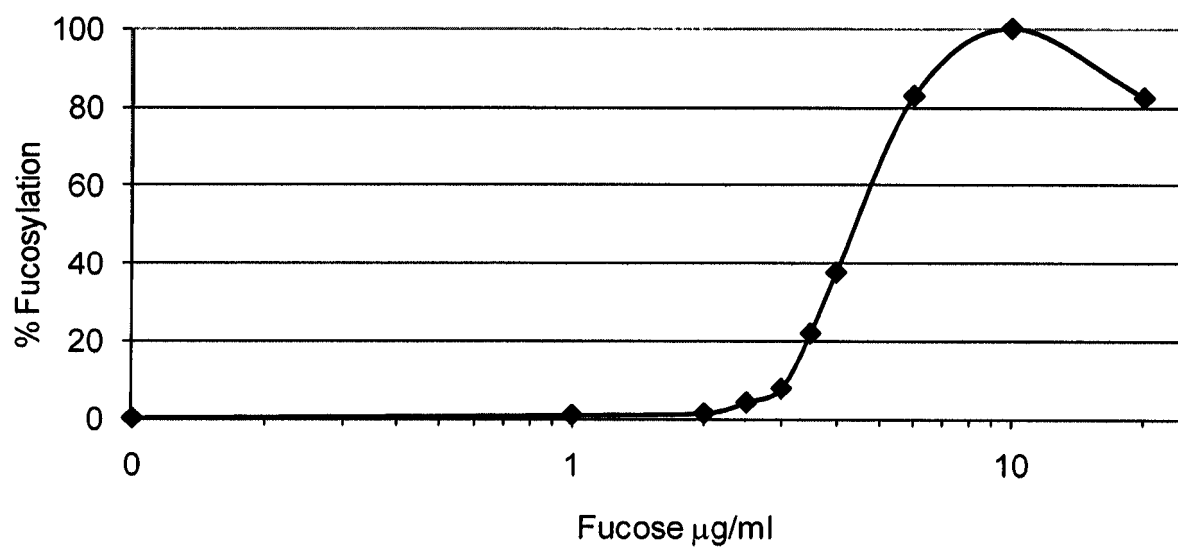
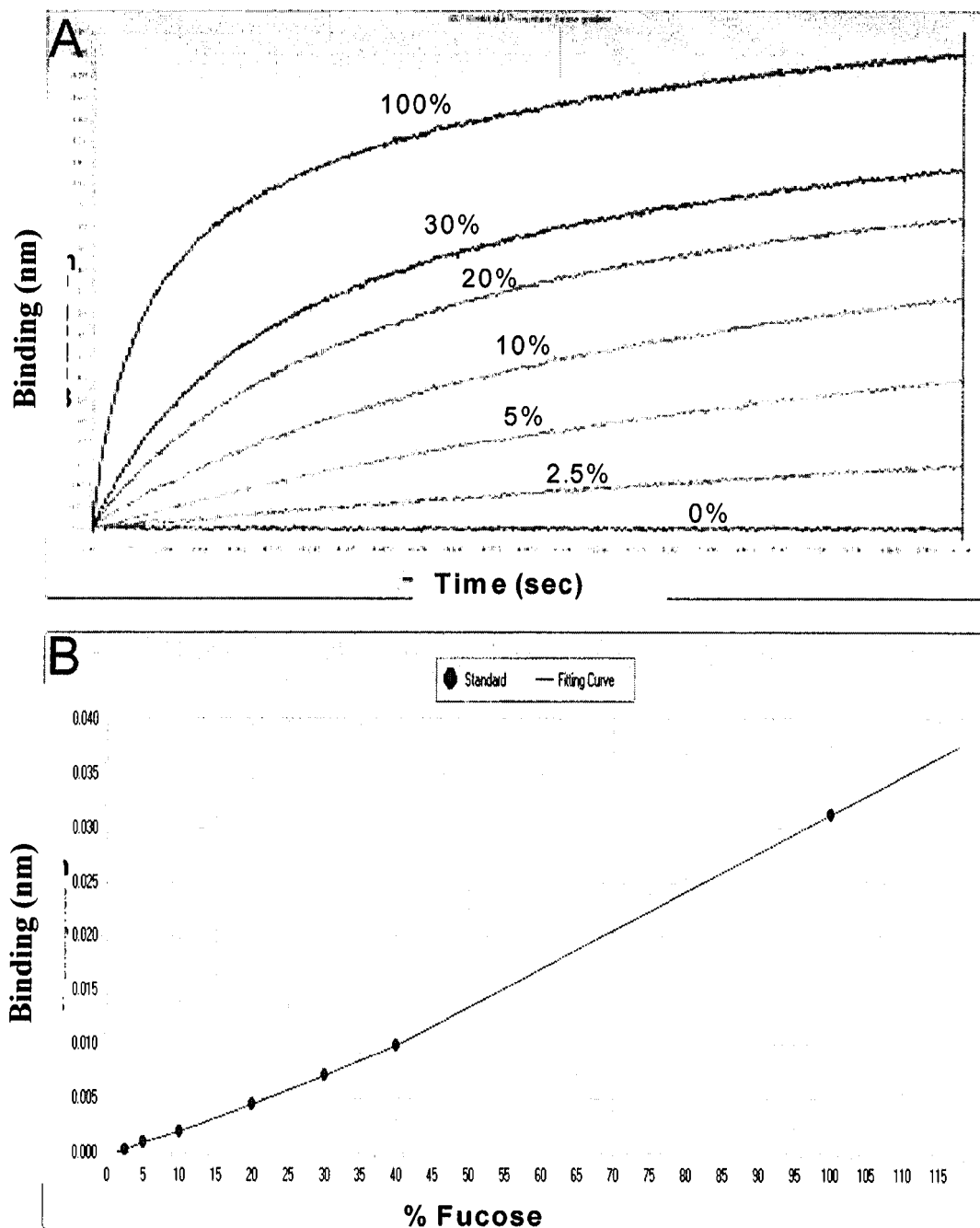


FIG. 46**FIG. 47**

FIGs. 48A-B

32/ 32

FIG.49

