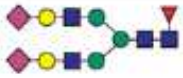
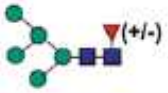
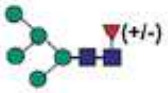
A

Cell line	Mutation	N-glycan	O-glycan
CHO-K1 (Wild type)	---		
CHO-gmt6	CMP-SAT; GnT I		
CHO-gmt7	UDP-GalT; GnT I		

B

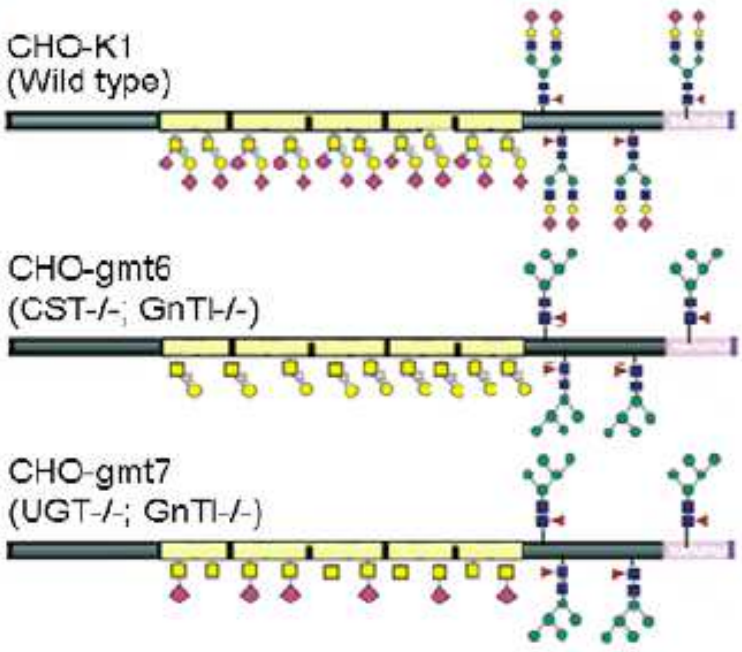


Figure 1

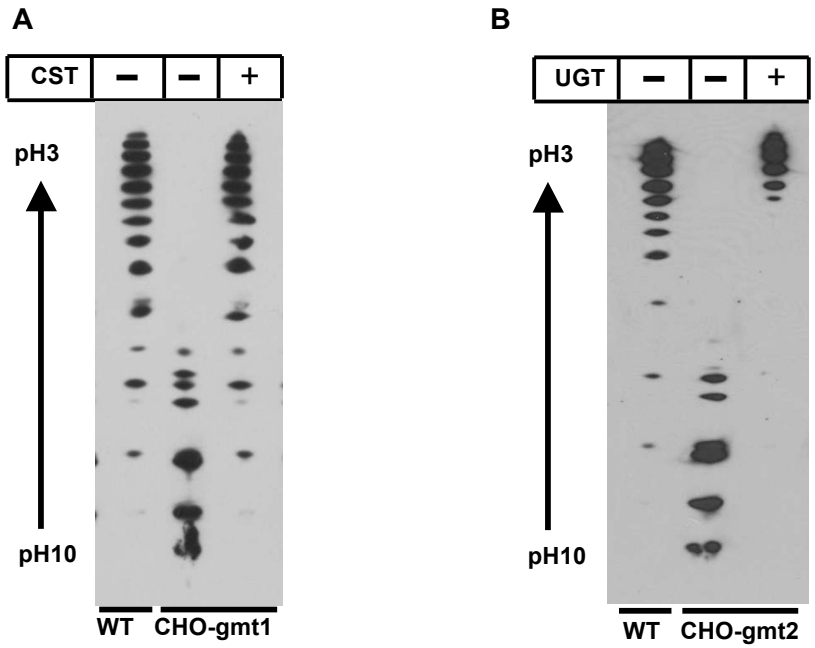


Figure 2

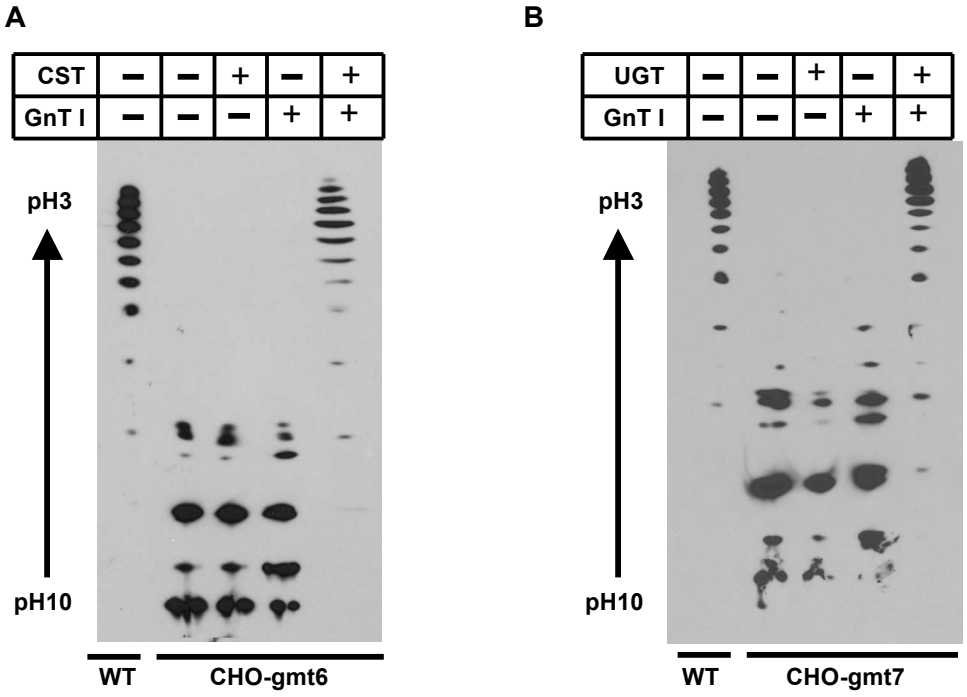


Figure 3

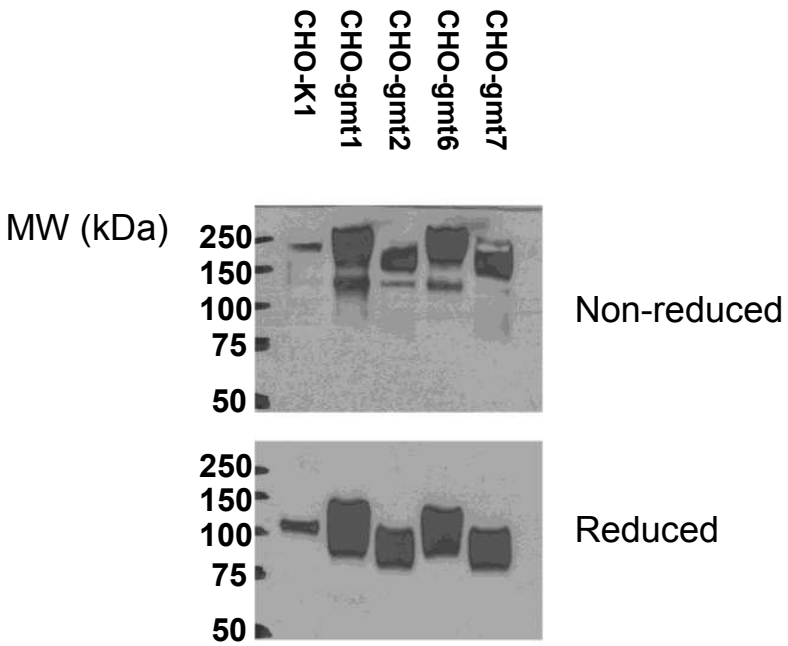


Figure 4



Figure 5

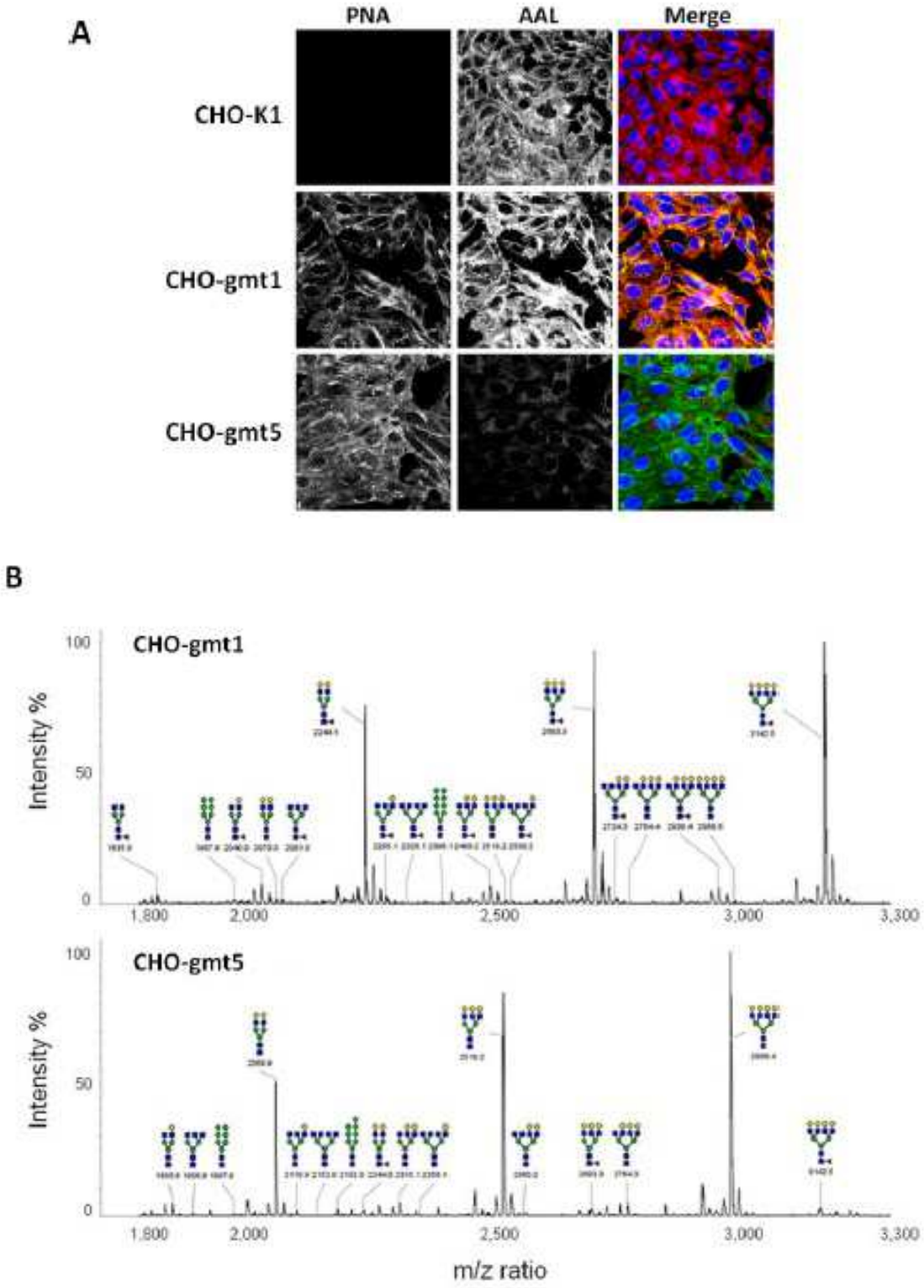

A
PNA
AAL
Merge
CHO-K1
CHO-gmt1
CHO-gmt5
B
CHO-gmt1
Intensity %
100
50
0
1,800
2,000
2,500
3,000
3,300
CHO-gmt5
Intensity %
100
50
0
1,800
2,000
2,500
3,000
3,300
m/z ratio

Figure 6

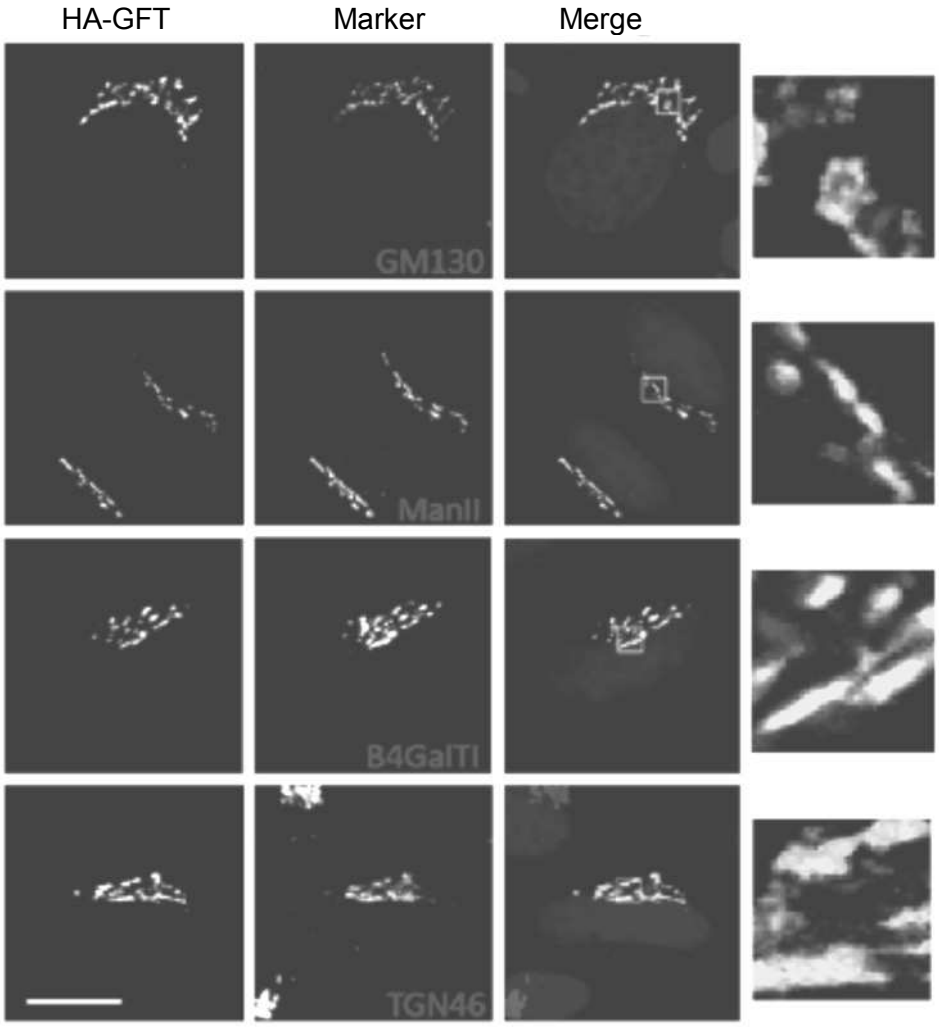


Figure 7

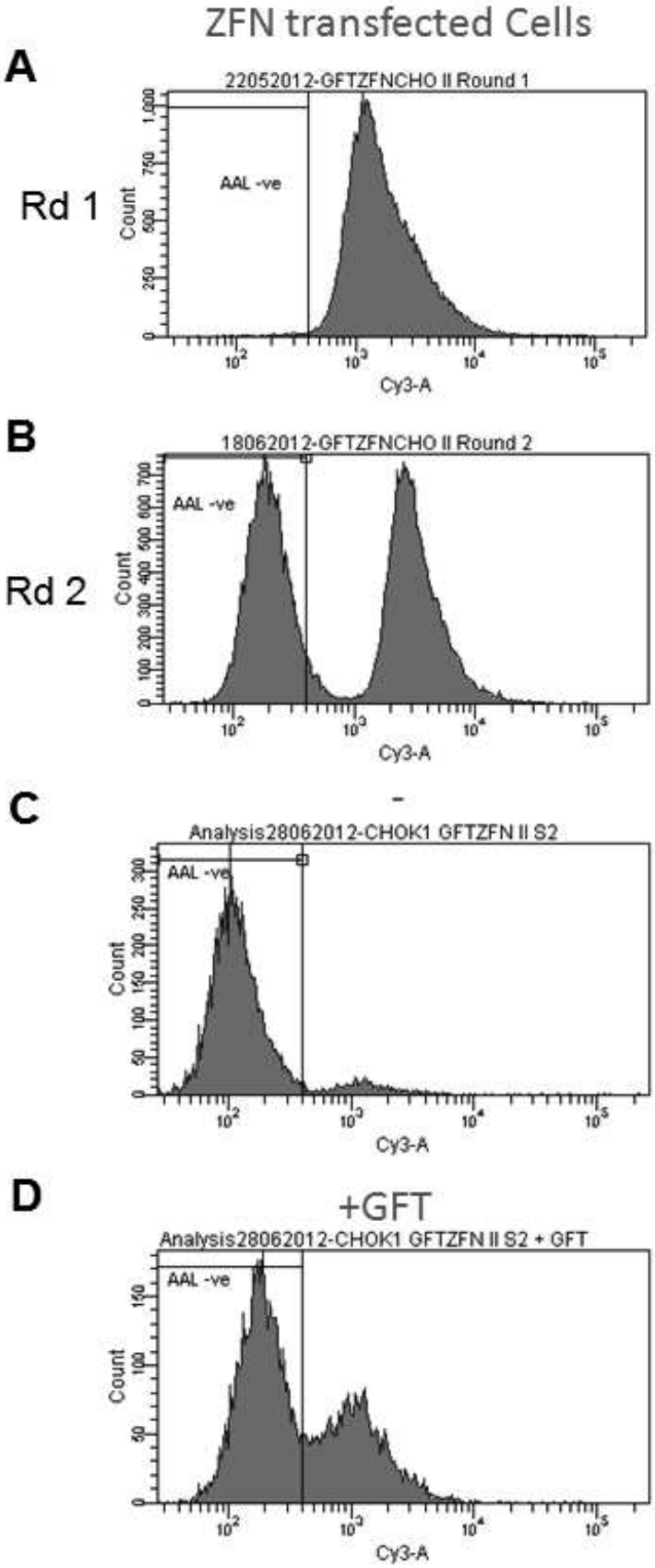

ZFN transfected Cells
A
22052012-GFTZFNCHO II Round 1
Rd 1
AAL -ve
Count
Cy3-A
B
18062012-GFTZFNCHO II Round 2
Rd 2
AAL -ve
Count
Cy3-A
C
Analysis28062012-CHOK1 GFTZFN II S2
AAL -ve
Count
Cy3-A
D
+GFT
Analysis28062012-CHOK1 GFTZFN II S2 + GFT
AAL -ve
Count
Cy3-A

Figure 8

	Sequence
CHO-K1 (WT)	ATGATAAGTTTCAAT**AACCTCTGCCTC**AAGTAC**GTAGGGGTGGCC**TTCTAC AACGTGGGGCGCTCG (SEQ ID NO: 34)
Mutant Clone #1	ATGATAAGTTTCAAT**AACCT**---------- ----TGGGGCGCTCG (Deletion of nucleotide 402-436) (SEQ ID NO: 35) ATGATAAGTTTCAAT**AACCTCTGCCTC**AAG-- C**GTAGGGGTGGCC**TTCTACAACGTGGGGCGCTCG (Deletion of nucleotide 412 and 413) (SEQ ID NO: 36)
Mutant Clone #3	ATGATAAGTTTCAAT**AACCTCTGCCTC**AAGTA-- **TAGGGGTGGCC**TTCTACAACGTGGGGCGCTCG (Deletion of nucleotide 414 and 415) (SEQ ID NO: 37) ATGATAAGTTTCAAT**AACCTCTGCCTC**AAGTAGTAC**GTAGGGGTGGCC**TTC TACAACGTGGGGCGCTCG (Insertion of GTA at position 414) (SEQ ID NO: 38)
Mutant Clone #9	ATGATAAGTTTCAAT**AACCTCTGCCTC**AAGTA-- **TAGGGGTGGCC**TTCTACAACGTGGGGCGCTCG (Deletion of nucleotides 414 and 415) (SEQ ID NO: 39) ATGATAAGTTTCAAT**AACCTCTGCCTC**AAGTAGGATGTGCTTGGTCCGGGA AGACCTGTCACTGAAGTTACGCATGCAGATTCGACACTGGAAGGGCCTCTC AGCTGTCGTGCCAGCTGCATTAATGAATCGGCCAAGTAC**GTAGGGGTGGCC** TTCTACAACGTGGGGCGCTCG (Insertion of 108 nucleotides at position 408) (SEQ ID NO: 40)

Figure 9

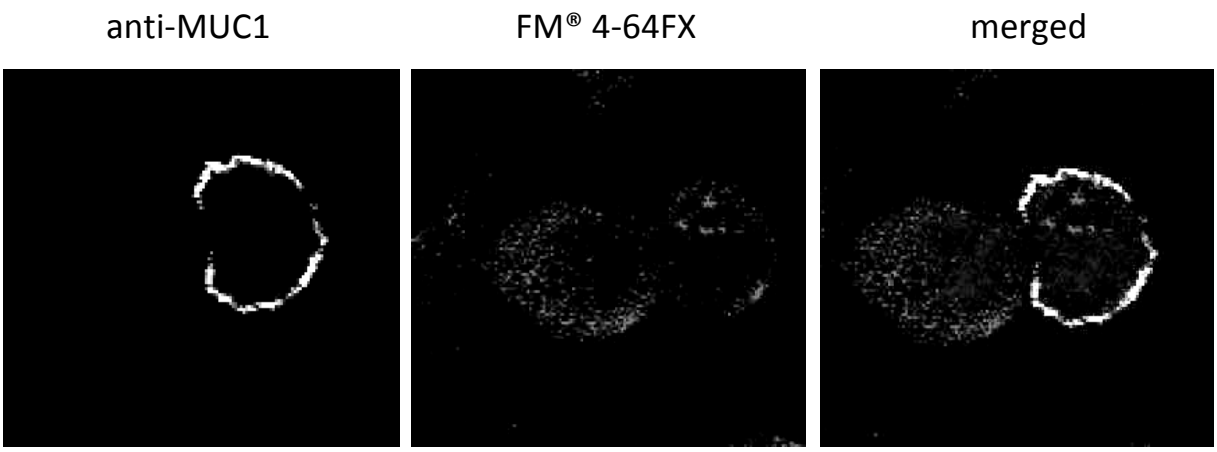


Figure 10