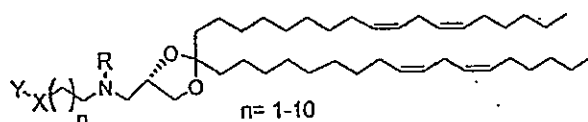


Figure 1.



X = NH(CO), (CO)NH, NH(CO)O
O(CO)NH, O, NH(CO)NH, S-S

R = CH₃, -(CH₂)₁₋₁₀

Y = (CH₂)_n- GalNAc, Mannose, Lactose, Glucose, Fucose

Y = (CH₂)_n- (GalNAc)₂, (Mannose)₂, (Lactose)₂, (Glucose)₂, (Fucose)₂

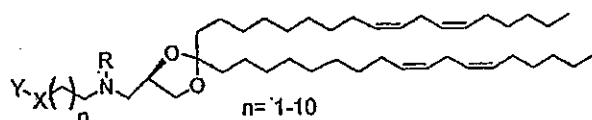
Y = (CH₂)_n- (GalNAc)₃, (Mannose)₃, (Lactose)₃, (Glucose)₃, (Fucose)₃

Y = (CH₂-CH₂-O)_a- GalNAc, Mannose, Lactose, Glucose, Fucose

Y = (CH₂-CH₂-O)_a- (GalNAc)₂, (Mannose)₂, (Lactose)₂, (Glucose)₂, (Fucose)₂

Y = (CH₂-CH₂-O)_a- (GalNAc)₃, (Mannose)₃, (Lactose)₃, (Glucose)₃, (Fucose)₃

a = 1-100



X = NH(CO), (CO)NH, NH(CO)O
O(CO)NH, O, NH(CO)NH, S-S

R = CH₃, -(CH₂)₁₋₁₀

Y = (CH₂)_n- GalNAc, Mannose, Lactose, Glucose, Fucose

Y = (CH₂)_n- (GalNAc)₂, (Mannose)₂, (Lactose)₂, (Glucose)₂, (Fucose)₂

Y = (CH₂)_n- (GalNAc)₃, (Mannose)₃, (Lactose)₃, (Glucose)₃, (Fucose)₃

Y = (CH₂-CH₂-O)_a- GalNAc, Mannose, Lactose, Glucose, Fucose

Y = (CH₂-CH₂-O)_a- (GalNAc)₂, (Mannose)₂, (Lactose)₂, (Glucose)₂, (Fucose)₂

Y = (CH₂-CH₂-O)_a- (GalNAc)₃, (Mannose)₃, (Lactose)₃, (Glucose)₃, (Fucose)₃

a = 1-100

Figure 2

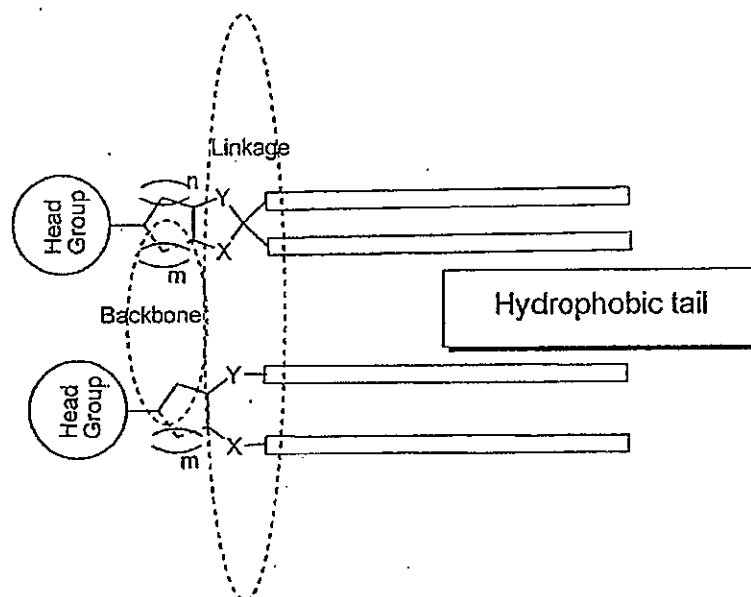


Figure 3

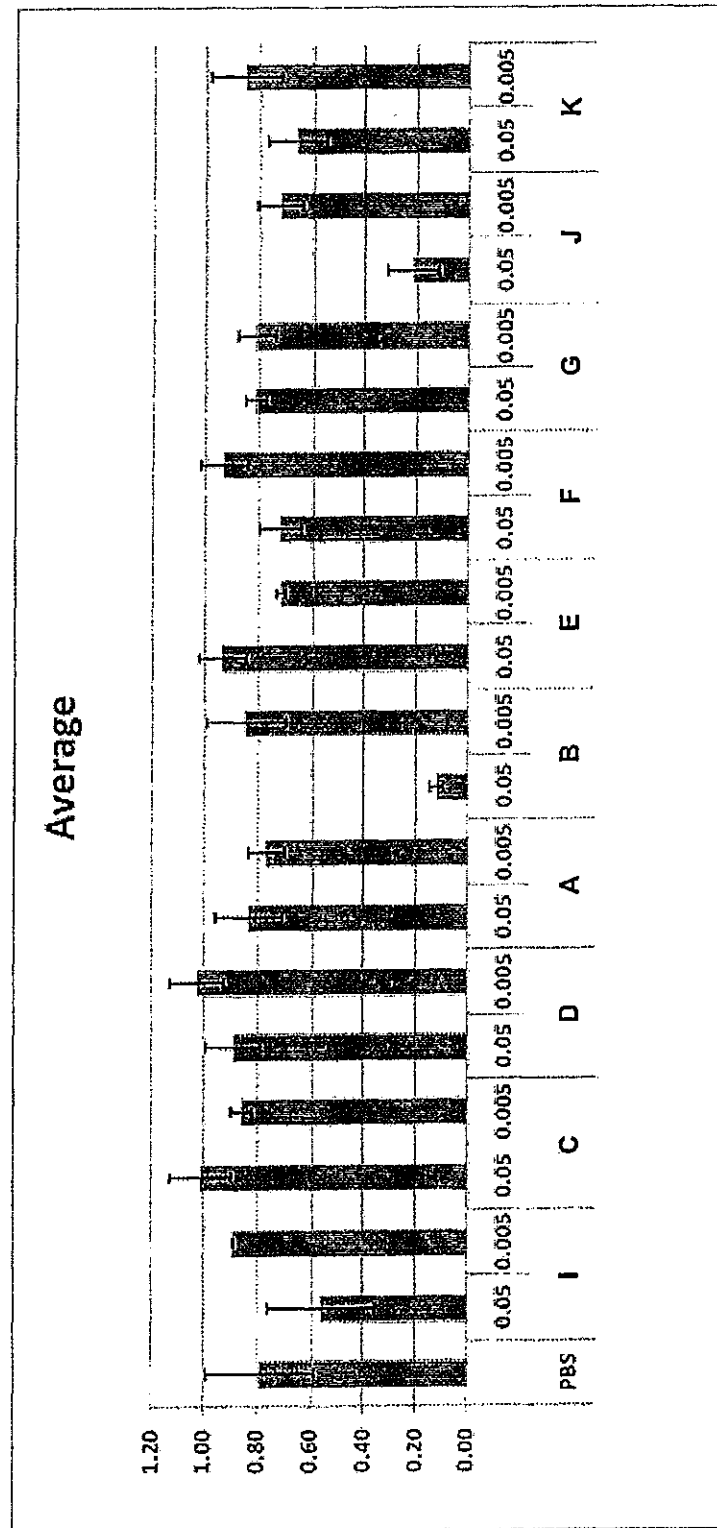


Figure 4

Compound	Structure	ED50	pKa
ALNY-190		0.47	6.49
ALNY-192		2.1	7.21
ALNY-200		>5.00	7.57
ALNY-202		0.12	6.52
ALNY-175		2.7	
ALNY-149		0.1	5.81
ALNY-160		2.00	5.18
ALNY-201		>5.0	8.02
ALNY-141		0.14	6.62
ALNY-181		0.25	