

Figure S1. SPR competition experiments of GRFN-1 with various components of N-linked glycans using immobilized gp41, gp120_{BAL} and gp120_{LAV}. Competing saccharides: A-Man₃GlcNAc₂ (“core pentasaccharide”); B-GlcNAc; C-mannose; D-galactose; E-sialic acid; F-fucose. Presented graphs were recalculated and plotted from multiple SPR data series.

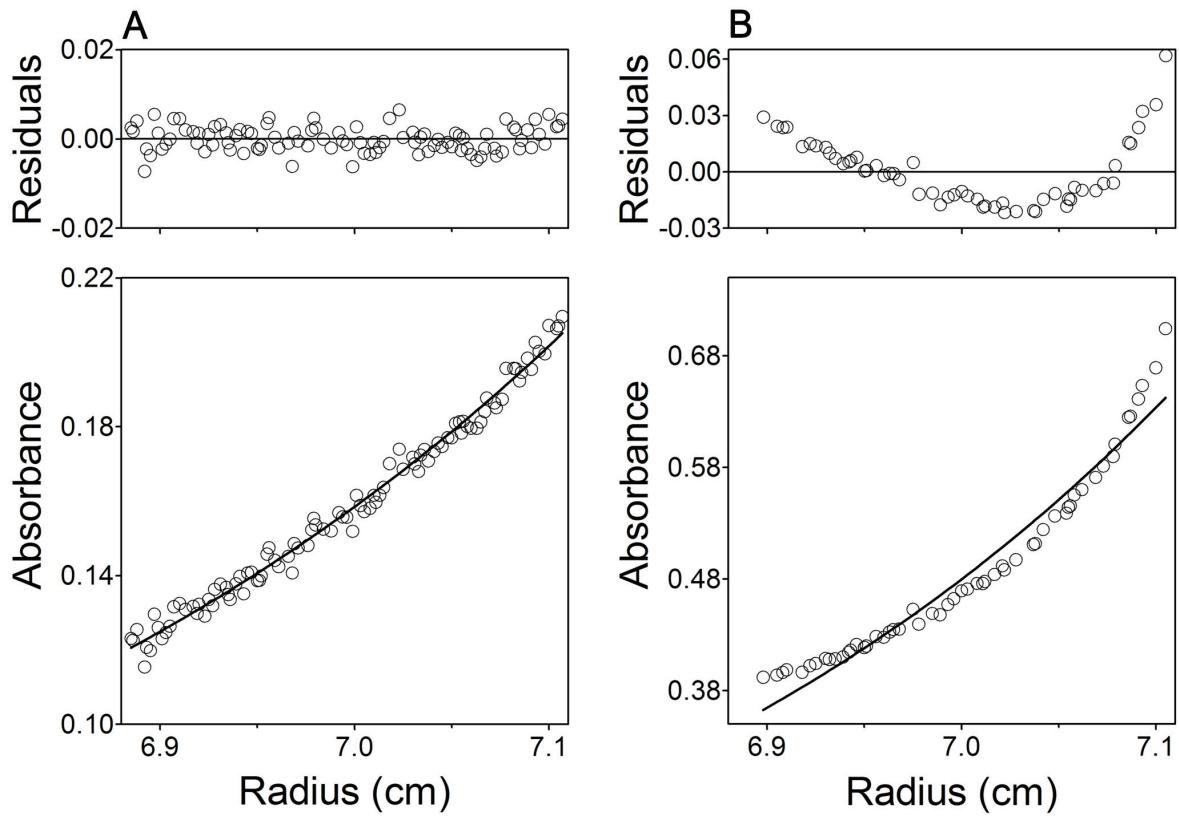


Figure S2. Sedimentation equilibrium studies of GRFN-1. Sedimentation equilibrium profiles were obtained for 36000 rpm (A) and 7000 rpm (B) at 20 °C. For experimental details see Materials & Methods section.

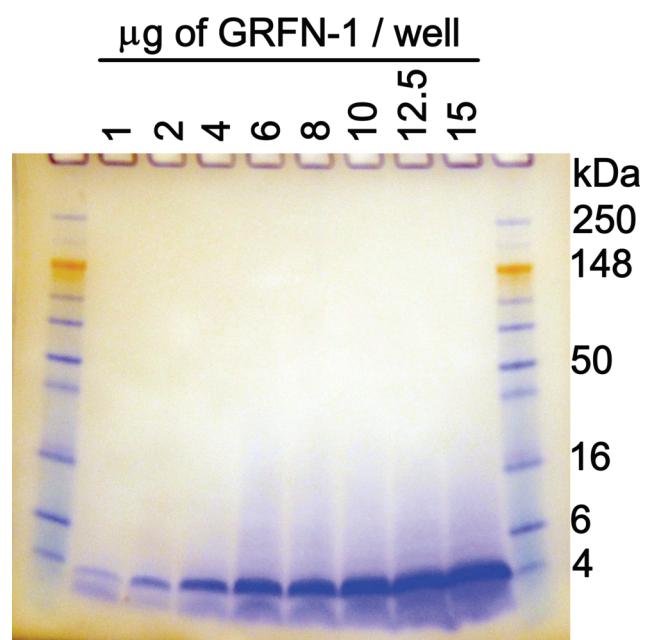


Figure S3. SDS-gel electrophoretic experiment for GRFN-1. Electrophoresis was performed in non-reductive conditions, using 10-20% polyacrylamide gradient gel which was subsequently stained with Colloidal Blue Staining kit (Invitrogen, Carlsbad, CA).

Table S1. Read-out of relative concentrations of inflammatory cytokines from the medium of primary vaginal epithelial cells (VEC) treated with various concentrations of GRFN-1.

GRFN-1	Observed concentration \pm SEM						
	Hu IL-1 α	Hu IL-8	Hu IL-17	Hu GM-CSF	Hu VEGF	Hu CTACK	Hu GRO α
100 μ M	820.6 \pm 237.4	33.7 \pm 23.1	4.6 \pm 0.0	23.3 \pm 5.3	366.8 \pm 48.8	9.7 \pm 1.9	26.6 \pm 3.4
10 μ M	370.6 \pm 54.1	22.7 \pm 20.0	4.2 \pm 2.4	32.5 \pm 14.7	316.6 \pm 1.3	7.2 \pm 0.2	22.1 \pm 3.5
1 μ M	203.3 \pm 61.5	77.7 \pm 0.0	7.1 \pm 1.8	38.4 \pm 10.8	191.2 \pm 113.1	11.2 \pm 2.5	24.3 \pm 5.7
Vehicle	76.0 \pm 66.8	19.8 \pm 0.0	OOR	23.5 \pm 7.9	28.6 \pm 26.2	7.6 \pm 0.2	21.8 \pm 1.7
Hu IL-12p40	Hu MCP-3						
	Hu IL-16	Hu IL-18	Hu LIF	Hu M-CSF	Hu MIF	Hu MIG	Hu NGF
100 μ M	29.8 \pm 2.5	4.6 \pm 0.0	7.0 \pm 1.4	10.5 \pm 0.2	7.0 \pm 0.2	13.8 \pm 0.7	3241.9 \pm 1514.1
10 μ M	21.6 \pm 0.9	4.0 \pm 0.0	2.7 \pm 2.2	8.7 \pm 0.4	5.7 \pm 0.2	12.1 \pm 0.6	1459.4 \pm 433.7
1 μ M	30.1 \pm 5.9	4.7 \pm 1.2	0.8 \pm 0.1	10.5 \pm 1.8	8.0 \pm 1.6	13.9 \pm 2.6	2460.7 \pm 514.8
Vehicle	25.7 \pm 1.5	4.4 \pm 0.1	1.2 \pm 0.1	8.3 \pm 0.7	6.0 \pm 0.3	9.8 \pm 0.4	447.5 \pm 99.5
Hu SDF-1 α	Hu IFN- α 2						
	Hu TNF- β	Hu TRAIL	Hu HGF	Hu IFN- α 2			
100 μ M	26.5 \pm 0.4	3.0 \pm 0.7	19.8 \pm 0.9	5.2 \pm 0.6	8.8 \pm 0.7		
10 μ M	22.5 \pm 0.0	2.3 \pm 0.0	14.0 \pm 1.6	4.6 \pm 0.2	6.1 \pm 0.6		
1 μ M	34.6 \pm 13.7	2.6 \pm 0.4	30.7 \pm 8.0	6.6 \pm 1.7	8.0 \pm 0.8		
Vehicle	22.5 \pm 0.0	2.4 \pm 0.1	17.6 \pm 0.3	4.1 \pm 0.0	5.8 \pm 0		

OOR-out of range

Table S2. Read-out of relative concentrations of inflammatory cytokines from the medium of human peripheral blood mononuclear cells (PBMC) treated with various concentrations of GRFN-1.

GRFN-1	Observed concentration \pm SEM							Hu RANTES	
	Hu IL-2	Hu IL-5	Hu IL-8	Hu IL-10	Hu IL-13	Hu G-CSF	Hu GM-CSF		
100 µM	7732.5 \pm 370.2	137.0 \pm 51.0	2.6 \pm 0.0	9.3 \pm 0.0	580.1 \pm 168.8	24.9 \pm 0.0	7.2 \pm 4.3	33.2 \pm 0.0	
10 µM	6165.9 \pm 302.3	92.2 \pm 4.3	6.4 \pm 0.0	3.6 \pm 1.7	629.2 \pm 13.9	23.9 \pm 13.5	4.6 \pm 0.0	34.5 \pm 17.0	
1 µM	8058.7 \pm 0.0	181.8 \pm 39.5	8.8 \pm 3.9	12.1 \pm 10.2	987.9 \pm 140.4	52.7 \pm 20.2	26.5 \pm 14.1	83.0 \pm 8.4	
Vehicle	9659.6 \pm 0.0	182.8 \pm 12.6	13.4 \pm 12.2	50.9 \pm 19.6	989.0 \pm 207.0	OOR	38.9 \pm 18.7	29.8 \pm 0.0	
Hu VEGF	Hu IFN- γ	Hu MIP-1 β	Hu CTACK	Hu GRO α	Hu IL-1 α	Hu IL-2Ra	Hu IL-3	Hu IL-12p40	
100 µM	7.3 \pm 3.5	1.1 \pm 0.0	333.0 \pm 51.4	20.8 \pm 1.9	22.8 \pm 1.4	2.0 \pm 0.1	27.4 \pm 2.0	23.0 \pm 0.8	
10 µM	6.8 \pm 0.8	1.1 \pm 0.0	338.5 \pm 52.4	22.8 \pm 0.0	26.3 \pm 0.6	2.0 \pm 0.0	29.5 \pm 0.4	25.2 \pm 1.6	
1 µM	20.4 \pm 6.7	37.5 \pm 20.4	658.3 \pm 118.1	18.4 \pm 1.0	23.2 \pm 1.2	1.9 \pm 0.1	30.9 \pm 1.8	18.4 \pm 0.4	
Vehicle	39.1 \pm 16.6	54.4 \pm 0.0	541.1 \pm 169.7	12.1 \pm 0.0	17.4 \pm 0.5	1.7 \pm 0.0	21.3 \pm 1.0	15.6 \pm 0.8	
Hu IL-18	Hu LIF	Hu MCP-3	Hu M-CSF	Hu MIF	Hu MG	Hu NGF	Hu SCF	Hu SDF-1 α	
100 µM	1.4 \pm 0.2	10.8 \pm 2.4	8.9 \pm 0.7	14.9 \pm 0.5	4003.9 \pm 1442.0	5.9 \pm 0.8	1.5 \pm 0.2	7.8 \pm 0.8	
10 µM	1.7 \pm 0.0	8.8 \pm 0.3	10.2 \pm 0.1	15.8 \pm 0.8	5968.3 \pm 546.1	7.8 \pm 0.4	1.8 \pm 0.1	8.8 \pm 0.2	
1 µM	1.1 \pm 0.0	7.5 \pm 0.1	9.3 \pm 0.2	13.6 \pm 0.0	3991.9 \pm 253.1	7.5 \pm 1.4	1.4 \pm 0.1	6.7 \pm 0.3	
Vehicle	0.6 \pm 0.0	9.1 \pm 0.4	6.1 \pm 0.2	12.9 \pm 0.5	1000.8 \pm 69.9	4.0 \pm 0.0	0.9 \pm 0.0	8.4 \pm 0.0	
Hu TNF- β	Hu TRAIL	Hu HGF	Hu IFN- α 2						
100 µM	49.3 \pm 17.9	54.6 \pm 1.4	7.8 \pm 0.5	44.1 \pm 8.4					
10 µM	45.7 \pm 9.3	72.0 \pm 3.5	8.6 \pm 0.0	57.1 \pm 2.4					
1 µM	65.2 \pm 8.4	82.5 \pm 14.0	7.6 \pm 0.7	48.8 \pm 0.1					
Vehicle	62.9 \pm 4.9	38.5 \pm 1.5	5.3 \pm 0.5	19.4 \pm 1.5					

OOR-out of range