

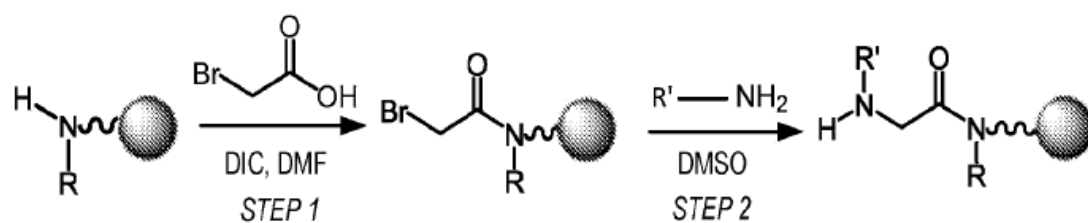
FIG. 1

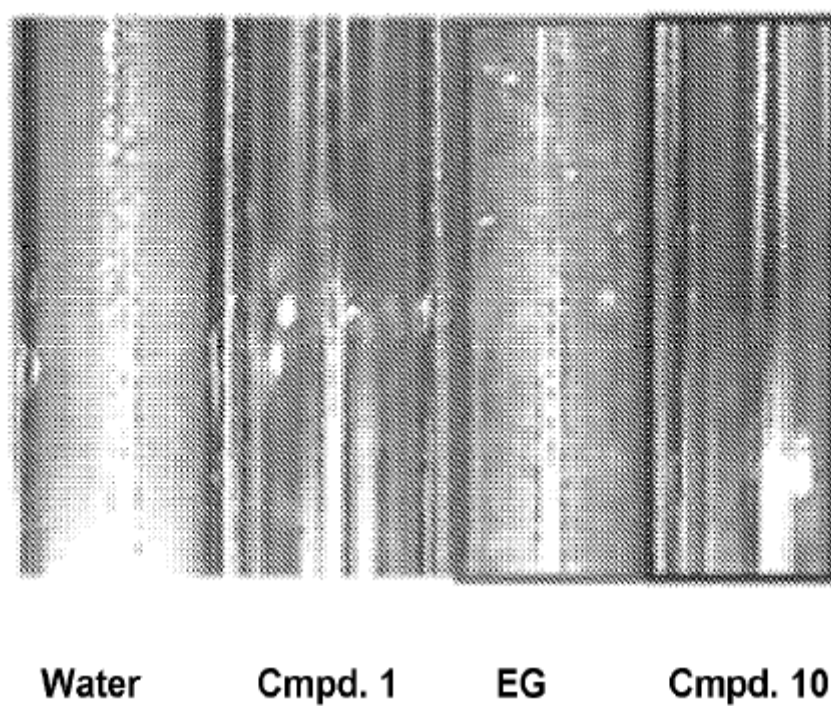
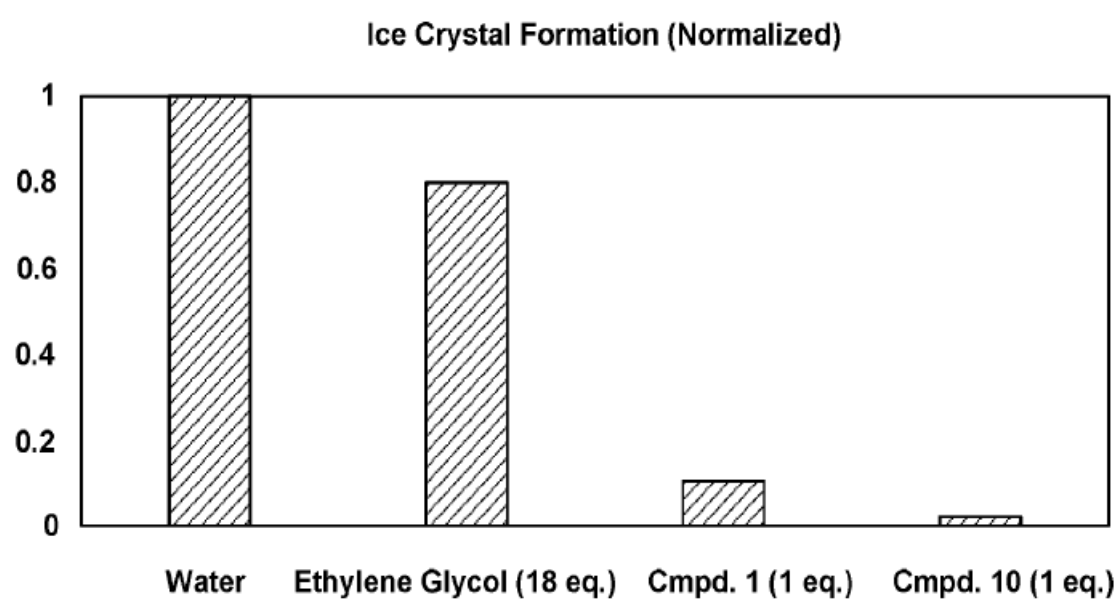
FIG. 2A**FIG. 2B**

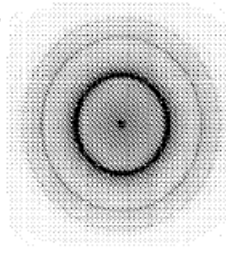
FIG. 3D

(d) X-ray diffraction of ice formation

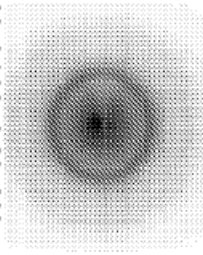
Solution	IceRing1	IceRing2
EG 15%	7	8
EG 17.5%	7	8
EG 20%	7	8
EG 22.5%	7	5
EG 25% (Standard)	5	5
EG 30% (Standard)	3	2
B (1 mg/ml)	4	1
B (5 mg/ml) EG 12.5%	6	5
D (1 mg/ml)	4	5
D (5 mg/ml) EG 17.5%	0	0
E (10 mg/ml)	3	2
E (5 mg/ml) EG 17.5%	1	0

FIG. 3C

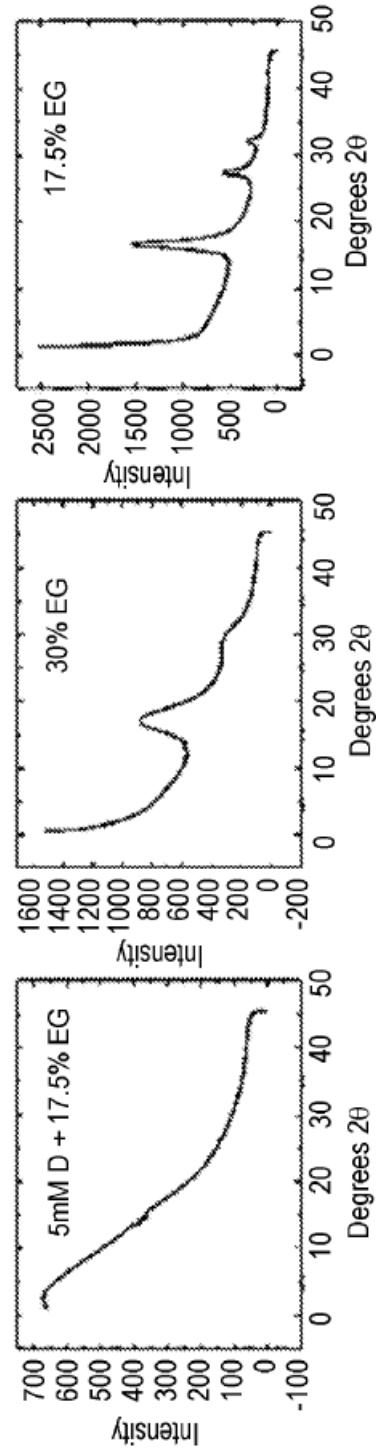
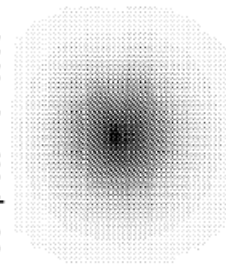
Frozen: Cubic Ice Crystals

**FIG. 3B**

Partial Vitrification with Presence of Cubic Ice

**FIG. 3A**

Complete Vitrification



Compound 10
5 mg/mL

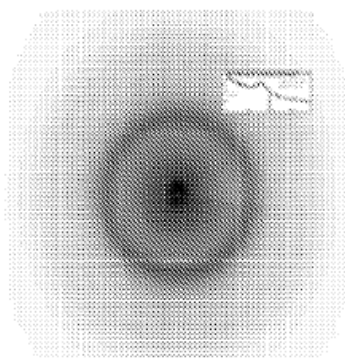
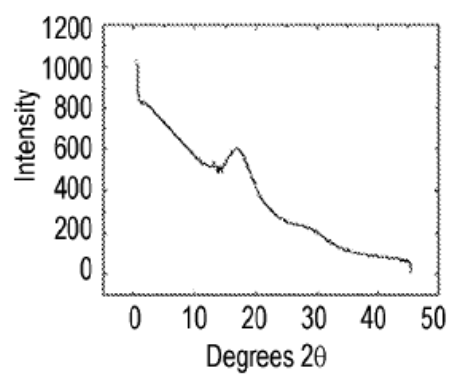


FIG. 4A



Compound 12
5 mg/mL

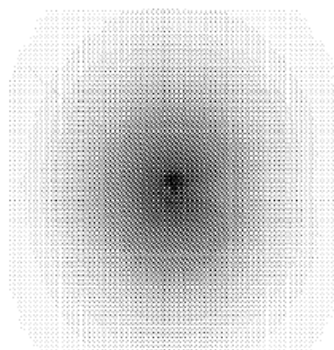
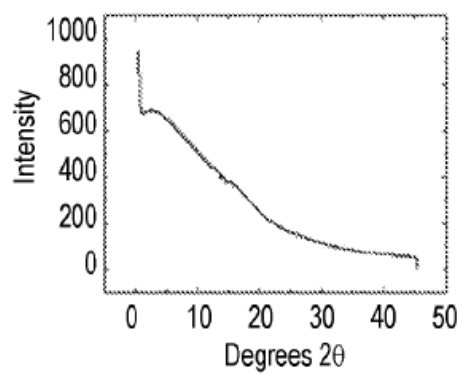


FIG. 4B



Compound 8
5 mg/mL

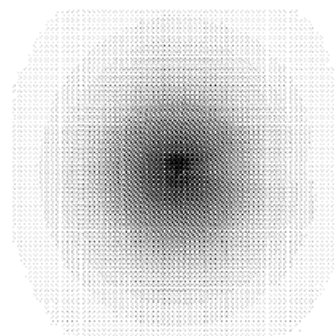
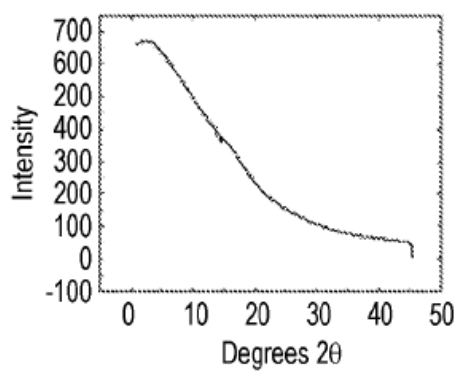


FIG. 4C



Compound 13
5 mg/mL

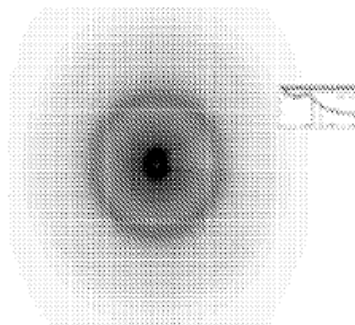


FIG. 4D

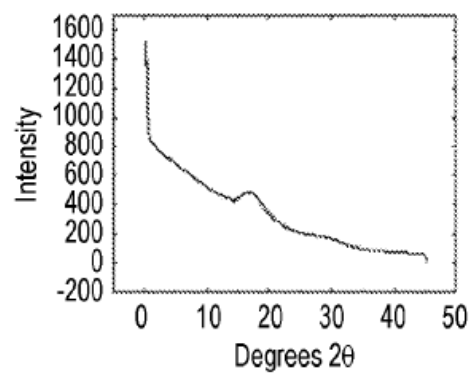
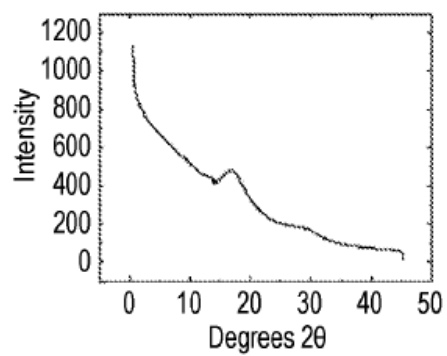
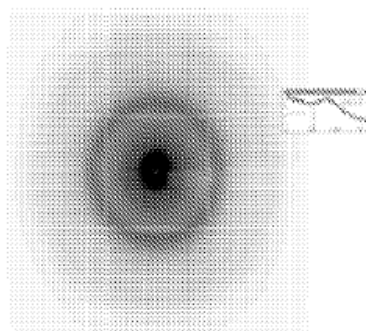
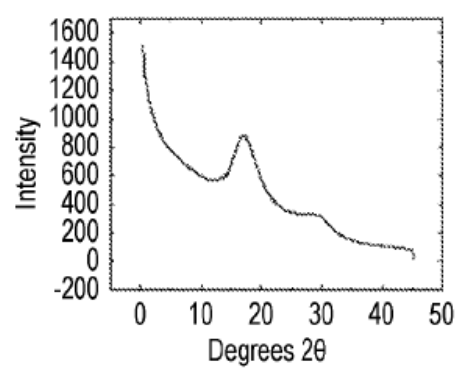
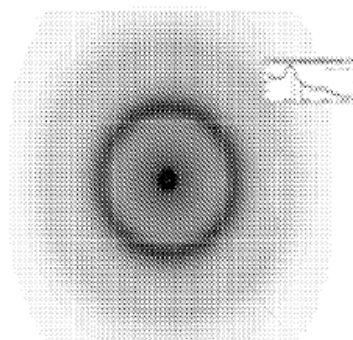


FIG. 4E

Compound 11
5 mg/mL

**FIG. 4F**

Compound 58
5 mg/mL

**FIG. 4G**

Control
15% EG

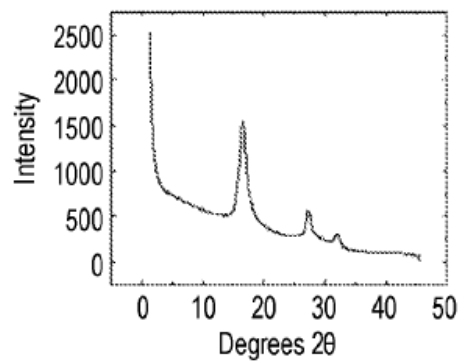
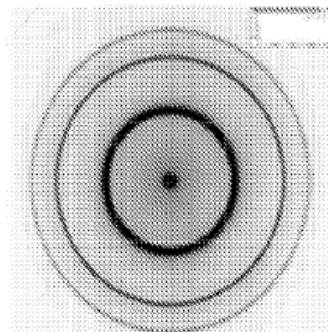
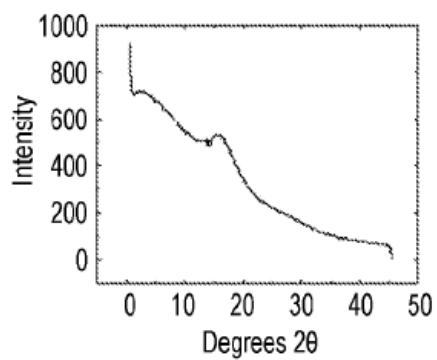
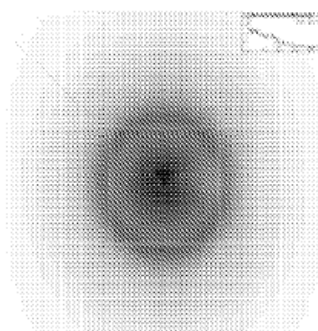
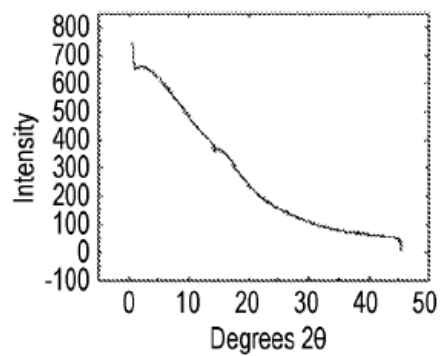
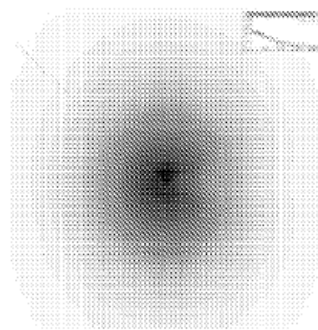


FIG. 5A

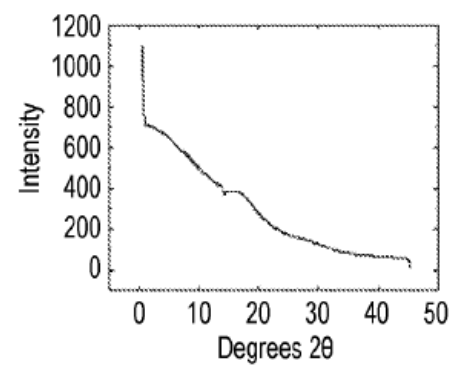
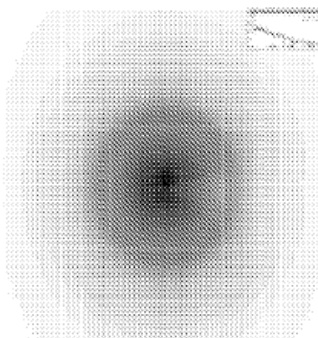
Compound 10
1 mg/mL

**FIG. 5B**

Compound 12
1 mg/mL

**FIG. 5C**

Compound 8
1 mg/mL

**FIG. 5D**

Compound 13
1 mg/mL

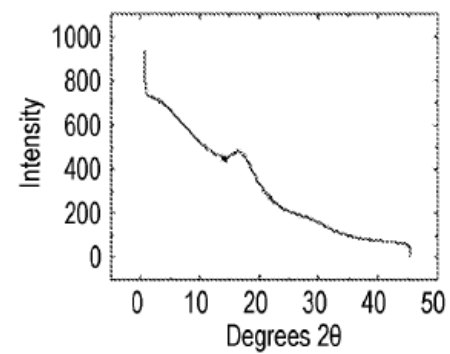
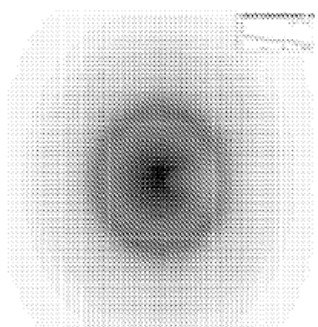
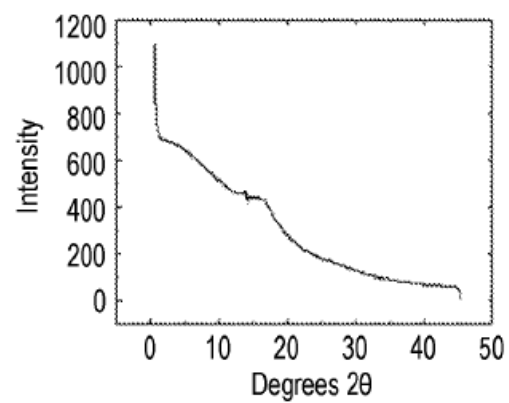
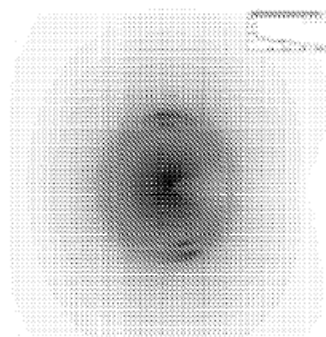
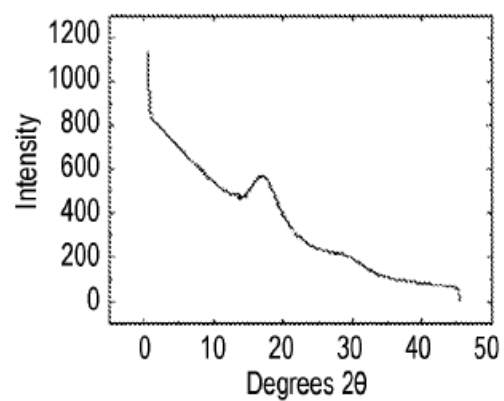
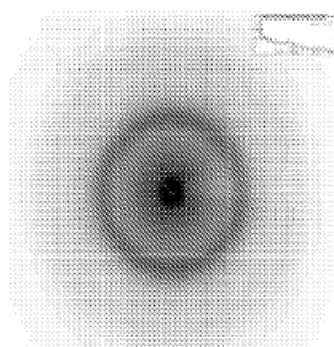


FIG. 5E

Compound 11
1 mg/mL

**FIG. 5F**

Compound 58
1 mg/mL

**FIG. 5G**

Control
17.5% EG

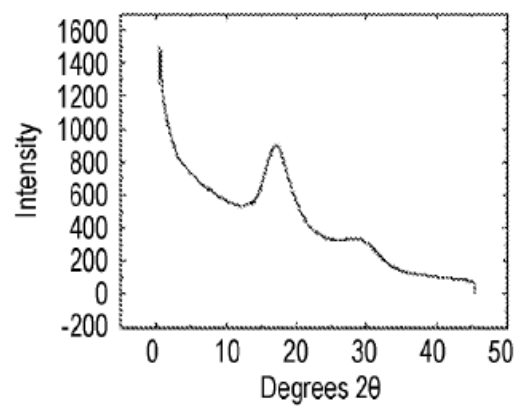
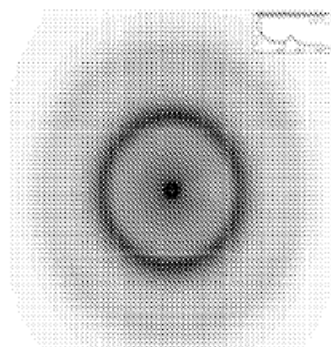


FIG. 6A

FIG. 6B

FIG. 6C

Control Compound 12

Control Compound 12

Control Compound 12

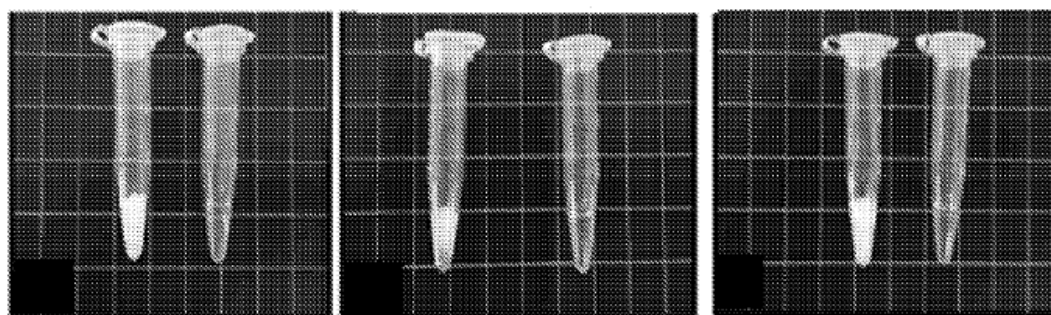


FIG. 7

Toxicity Data at 37 °C (HEK 293)

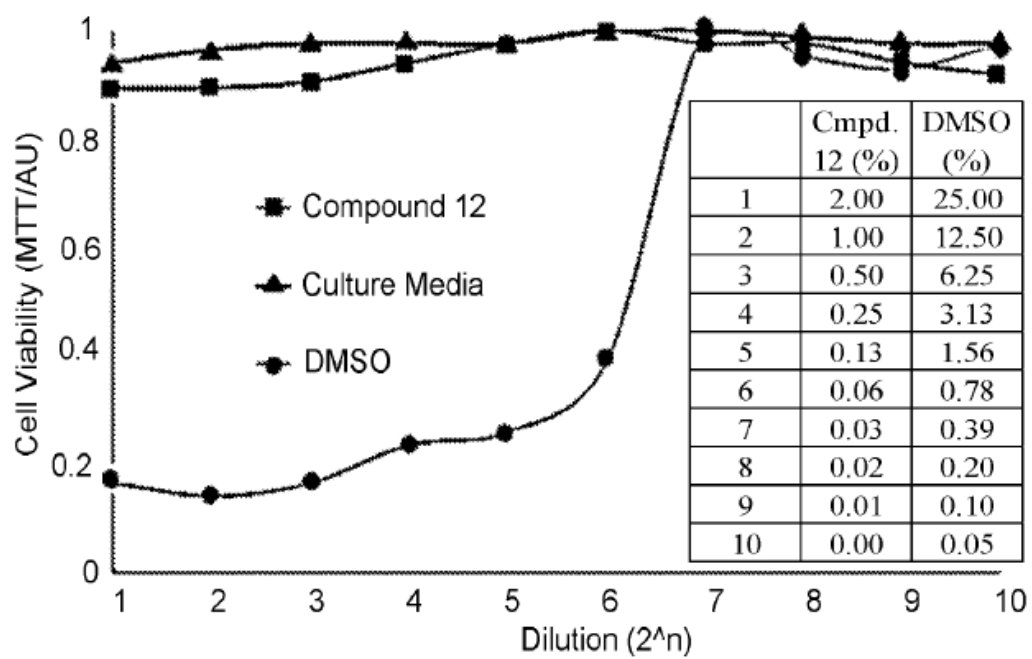


FIG. 8

12 Hours Post Thaw HEK 293 Cell Viability (Normalized)

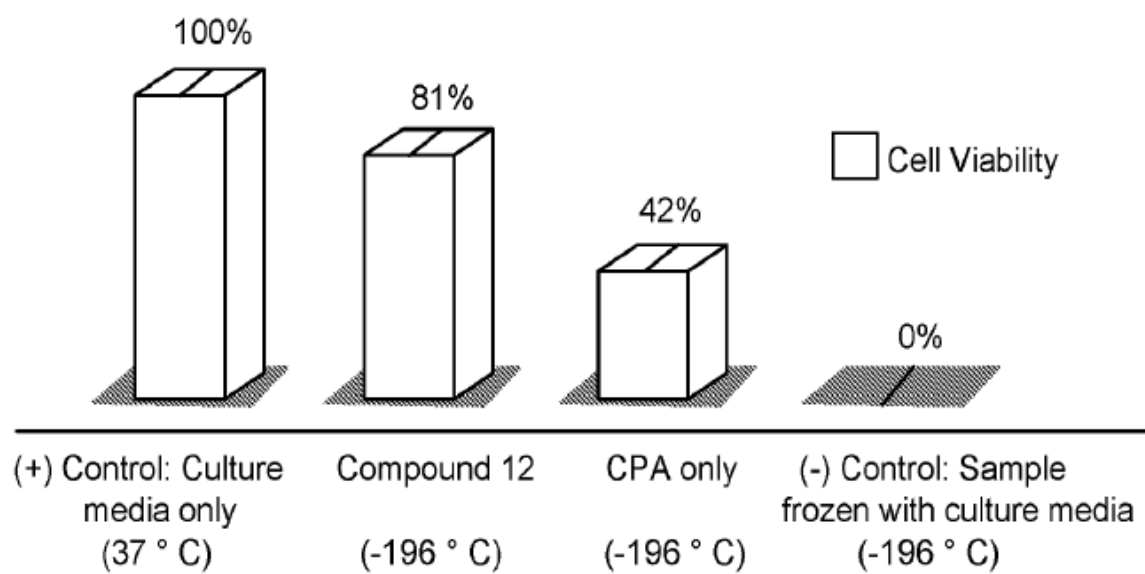


FIG. 9

16 Hrs Post-Thaw HEK 293 Cells Viability after Vitrification in LN2

