

## Crystal Screen Cryo HT Formulation

Well #		Salt	Buffer	pH		Precipitant 1	Precipitant 2	Cryoprotectant	Avg. pH
A1	0.02 M	Calcium chloride dihydrate	0.1 M Sodium acetate trihydrate	4.6	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			5.1
A2					0.26 M	Potassium sodium tartate tetrahydrate		35 % v/v Glycerol	7.6
A3					0.26 M	Ammonium phosphate monobasic		35 % v/v Glycerol	4.3
A4			0.075 M TRIS hydrochloride	8.5	1.5 M	Ammonium sulfate		25 % v/v Glycerol	8.0
A5	0.2 M	Sodium citrate tribasic dihydrate	0.1 M HEPES sodium	7.5	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			7.4
A6	0.16 M	Magnesium chloride hexahydrate	0.08 M TRIS hydrochloride	8.5	24 % w/v	Polyethylene glycol 4,000		20 % v/v Glycerol	8.5
A7			0.07 M Sodium cacodylate trihydrate	6.5	0.98 M	Sodium acetate trihydrate		30 % v/v Glycerol	6.8
A8	0.14 M	Sodium citrate tribasic dihydrate	0.07 M Sodium cacodylate trihydrate	6.5	21 % v/v	2-Propanol		30 % v/v Glycerol	7.0
A9	0.17 M	Ammonium acetate	0.085 M Sodium citrate tribasic dihydrate	5.6	25.5 % w/v	Polyethylene glycol 4,000		15 % v/v Glycerol	6.5
A10	0.17 M	Ammonium acetate	0.085 M Sodium acetate trihydrate	4.6	25.5 % w/v	Polyethylene glycol 4,000		15 % v/v Glycerol	5.8
A11			0.07 M Sodium citrate tribasic dihydrate	5.6	0.7 M	Ammonium phosphate monobasic		30 % v/v Glycerol	4.9
A12	0.18 M	Magnesium chloride hexahydrate	0.09 M HEPES sodium	7.5	27 % v/v	2-Propanol		10 % v/v Glycerol	7.2
B1	0.2 M	Sodium citrate tribasic dihydrate	0.1 M TRIS hydrochloride	8.5	30 % v/v	Polyethylene glycol 400			8.8
B2	0.19 M	Calcium chloride dihydrate	0.095 M HEPES sodium	7.5	26.6 % v/v	Polyethylene glycol 400		5 % v/v Glycerol	7.2
B3	0.17 M	Ammonium sulfate	0.085 M Sodium cacodylate trihydrate	6.5	25.5 % w/v	Polyethylene glycol 8,000		15 % v/v Glycerol	6.6
B4			0.075 M HEPES sodium	7.5	1.125 M	Lithium sulfate monohydrate		25 % v/v Glycerol	7.5
B5	0.17 M	Lithium sulfate monohydrate	0.085 M TRIS hydrochloride	8.5	25.5 % w/v	Polyethylene glycol 4,000		15 % v/v Glycerol	8.6
B6	0.16 M	Magnesium acetate tetrahydrate	0.08 M Sodium cacodylate trihydrate	6.5	16 % w/v	Polyethylene glycol 8,000		20 % v/v Glycerol	6.5
B7	0.16 M	Ammonium acetate	0.08 M TRIS hydrochloride	8.5	24 % v/v	2-Propanol		20 % v/v Glycerol	8.2
B8	0.16 M	Ammonium sulfate	0.08 M Sodium acetate trihydrate	4.6	20 % w/v	Polyethylene glycol 4,000		20 % v/v Glycerol	4.9
B9	0.2 M	Magnesium acetate tetrahydrate	0.1 M Sodium cacodylate trihydrate	6.5	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			6.7
B10	0.17 M	Sodium acetate trihydrate	0.085 M TRIS hydrochloride	8.5	25.5 % w/v	Polyethylene glycol 4,000		15 % v/v Glycerol	8.6
B11	0.2 M	Magnesium chloride hexahydrate	0.1 M HEPES sodium	7.5	30 % v/v	Polyethylene glycol 400			7.2
B12	0.14 M	Calcium chloride dihydrate	0.07 M Sodium acetate trihydrate	4.6	14 % v/v	2-Propanol		30 % v/v Glycerol	4.7
C1			0.07 M Imidazole	6.5	0.7 M	Sodium acetate trihydrate		30 % v/v Glycerol	6.8
C2	0.2 M	Ammonium acetate	0.1 M Sodium citrate tribasic dihydrate	5.6	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			6.4
C3	0.14 M	Sodium citrate tribasic dihydrate	0.07 M HEPES sodium	7.5	14 % v/v	2-Propanol		30 % v/v Glycerol	7.4
C4	0.17 M	Sodium acetate trihydrate	0.085 M Sodium cacodylate trihydrate	6.5	25.5 % w/v	Polyethylene glycol 8,000		15 % v/v Glycerol	6.9
C5			0.065 M HEPES sodium	7.5	0.52 M	Potassium sodium tartate tetrahydrate		35 % v/v Glycerol	7.5
C6	0.17 M	Ammonium sulfate			25.5 % w/v	Polyethylene glycol 8,000		15 % v/v Glycerol	5.6
C7	0.17 M	Ammonium sulfate			25.5 % w/v	Polyethylene glycol 4,000		15 % v/v Glycerol	5.6
C8					1.5 M	Ammonium sulfate		25 % v/v Glycerol	5.2
C9					3.6 M	Sodium formate		10 % v/v Glycerol	8.3
C10			0.07 M Sodium acetate trihydrate	4.6	1.4 M	Sodium formate		30 % v/v Glycerol	5.5
C11			0.075 M HEPES sodium	7.5	0.6 M	Sodium phosphate monobasic monohydrate	0.6 M Potassium phosphate monobasic	25 % v/v Glycerol	4.7
C12			0.065 M TRIS hydrochloride	8.5	5.2 % w/v	Polyethylene glycol 8,000		35 % v/v Glycerol	8.4
D1			0.07 M Sodium acetate trihydrate	4.6	5.6 % w/v	Polyethylene glycol 4,000		30 % v/v Glycerol	4.9
D2			0.09 M HEPES sodium	7.5	1.26 M	Sodium citrate tribasic dihydrate		10 % v/v Glycerol	7.8
D3			0.085 M HEPES sodium	7.5	1.7 % v/v	Polyethylene glycol 400	1.7 M Ammonium sulfate	15 % v/v Glycerol	7.4
D4			0.095 M Sodium citrate tribasic dihydrate	5.6	19 % v/v	2-Propanol	19 % w/v Polyethylene glycol 4,000	5 % v/v Glycerol	6.5
D5			0.085 M HEPES sodium	7.5	8.5 % v/v	2-Propanol	17 % w/v Polyethylene glycol 4,000	15 % v/v Glycerol	7.3

D6	0.04 M	Potassium phosphate monobasic			16 % w/v	Polyethylene glycol 8,000	20 % v/v	Glycerol	5.0			
D7					24 % w/v	Polyethylene glycol 1,500	20 % v/v	Glycerol	6.8			
D8					0.1 M	Magnesium formate dihydrate	50 % v/v	Glycerol	7.1			
D9	0.16 M	Zinc acetate dihydrate	0.08 M	Sodium cacodylate trihydrate	6.5	14.4 % w/v	Polyethylene glycol 8,000	20 % v/v	Glycerol	5.9		
D10	0.16 M	Calcium acetate hydrate	0.08 M	Sodium cacodylate trihydrate	6.5	14.4 % w/v	Polyethylene glycol 8,000	20 % v/v	Glycerol	6.6		
D11			0.08 M	Sodium acetate trihydrate	4.6	1.6 M	Ammonium sulfate	20 % v/v	Glycerol	4.6		
D12			0.08 M	TRIS hydrochloride	8.5	1.6 M	Ammonium phosphate monobasic	20 % v/v	Glycerol	4.3		
E1	1.6 M	Sodium chloride				8 % w/v	Polyethylene glycol 6,000	20 % v/v	Glycerol	5.3		
E2	0.3 M	Sodium chloride				0.006 M	Hexadecyltrimethylammonium bromide	40 % v/v	Glycerol	5.3		
	0.006 M	Magnesium chloride hexahydrate										
E3						21.25 % v/v	Ethylene glycol	15 % v/v	Glycerol	5.8		
E4						26.25 % v/v	1,4-Dioxane	25 % v/v	Glycerol	4.9		
E5	1.5 M	Ammonium sulfate				3.75 % v/v	2-Propanol	25 % v/v	Glycerol	5.2		
E6						0.65 M	Imidazole pH 7.0	35 % v/v	Glycerol	7.0		
E7						8 % w/v	Polyethylene glycol 1,000	8 % w/v	Polyethylene glycol 8,000	20 % v/v	Glycerol	6.1
E8	1.05 M	Sodium chloride				7 % v/v	Ethanol	30 % v/v	Glycerol	5.6		
E9			0.075 M	Sodium acetate trihydrate	4.6	1.5 M	Sodium chloride	25 % v/v	Glycerol	4.5		
E10	0.2 M	Sodium chloride	0.1 M	Sodium acetate trihydrate	4.6	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			5.0		
E11	0.008 M	Cobalt(II) chloride hexahydrate	0.08 M	Sodium acetate trihydrate	4.6	0.8 M	1,6-Hexanediol	20 % v/v	Glycerol	4.8		
E12	0.095 M	Cadmium chloride hydrate	0.095 M	Sodium acetate trihydrate	4.6	28.5 % v/v	Polyethylene glycol 400	5 % v/v	Glycerol	4.9		
F1	0.18 M	Ammonium sulfate	0.09 M	Sodium acetate trihydrate	4.6	27 % w/v	Polyethylene glycol monomethyl ether 2,000	10 % v/v	Glycerol	5.0		
F2	0.15 M	Potassium sodium tartrate tetrahydrate	0.075 M	Sodium citrate tribasic dihydrate	5.6	1.5 M	Ammonium sulfate	25 % v/v	Glycerol	5.7		
F3	0.375 M	Ammonium sulfate	0.075 M	Sodium citrate tribasic dihydrate	5.6	0.75 M	Lithium sulfate monohydrate	25 % v/v	Glycerol	5.3		
F4	0.3 M	Sodium chloride	0.06 M	Sodium citrate tribasic dihydrate	5.6	1.2 % v/v	Ethylene imine polymer	40 % v/v	Glycerol	5.6		
F5			0.08 M	Sodium citrate tribasic dihydrate	5.6	28 % v/v	tert-Butanol	20 % v/v	Glycerol	6.4		
F6	0.007 M	Iron(III) chloride hexahydrate	0.07 M	Sodium citrate tribasic dihydrate	5.6	7 % v/v	Jeffamine M-600	30 % v/v	Glycerol	5.6		
F7			0.095 M	Sodium citrate tribasic dihydrate	5.6	2.375 M	1,6-Hexanediol	5 % v/v	Glycerol	6.3		
F8			0.08 M	MES monohydrate	6.5	1.28 M	Magnesium sulfate heptahydrate	20 % v/v	Glycerol	6.5		
F9	0.075 M	Sodium phosphate monobasic monohydrate	0.075 M	MES monohydrate	6.5	1.5 M	Sodium chloride	25 % v/v	Glycerol	5.5		
	0.075 M	Potassium phosphate monobasic										
F10			0.065 M	MES monohydrate	6.5	7.8 % w/v	Polyethylene glycol 20,000	35 % v/v	Glycerol	6.5		
F11	1.2 M	Ammonium sulfate	0.075 M	MES monohydrate	6.5	7.5 % v/v	1,4-Dioxane	25 % v/v	Glycerol	6.6		
F12	0.05 M	Cesium chloride	0.1 M	MES monohydrate	6.5	30 % v/v	Jeffamine M-600			6.5		
G1	0.0075 M	Cobalt(II) chloride hexahydrate	0.075 M	MES monohydrate	6.5	1.35 M	Ammonium sulfate	25 % v/v	Glycerol	6.6		
G2	0.18 M	Ammonium sulfate	0.09 M	MES monohydrate	6.5	27 % w/v	Polyethylene glycol monomethyl ether 5,000	10 % v/v	Glycerol	6.3		
G3	0.009 M	Zinc sulfate heptahydrate	0.09 M	MES monohydrate	6.5	22.5 % v/v	Polyethylene glycol monomethyl ether 550	10 % v/v	Glycerol	6.5		
G4						1.6 M	Sodium citrate tribasic dihydrate pH 6.5			6.5		
G5	0.5 M	Ammonium sulfate	0.1 M	HEPES	7.5	30 % v/v	(+/-)-2-Methyl-2,4-pentanediol			7.2		
G6			0.08 M	HEPES	7.5	8 % w/v	Polyethylene glycol 6,000	4 % v/v	(+/-)-2-Methyl-2,4-pentanediol	20 % v/v	Glycerol	7.4
G7			0.085 M	HEPES	7.5	17 % v/v	Jeffamine M-600	15 % v/v	Glycerol	7.5		
G8	0.075 M	Sodium chloride	0.075 M	HEPES	7.5	1.2 M	Ammonium sulfate	25 % v/v	Glycerol	7.4		
G9			0.07 M	HEPES	7.5	1.4 M	Ammonium formate	30 % v/v	Glycerol	7.3		
G10	0.0375 M	Cadmium sulfate hydrate	0.075 M	HEPES	7.5	0.75 M	Sodium acetate trihydrate	25 % v/v	Glycerol	7.3		
G11			0.1 M	HEPES	7.5	70 % v/v	(+/-)-2-Methyl-2,4-pentanediol			7.4		
G12			0.085 M	HEPES	7.5	3.655 M	Sodium chloride	15 % v/v	Glycerol	7.8		

H1			0.075 M HEPES	7.5	7.5 % w/v	Polyethylene glycol 8,000	6 % v/v Ethylene glycol	25 % v/v Glycerol	7.4
H2			0.075 M HEPES	7.5	15 % w/v	Polyethylene glycol 10,000		25 % v/v Glycerol	7.5
H3	0.2 M	Magnesium chloride hexahydrate	0.1 M Tris	8.5	3.4 M	1,6-Hexanediol			8.4
H4			0.075 M Tris	8.5	18.75 % v/v	tert-Butanol		25 % v/v Glycerol	8.3
H5	0.0075 M	Nickel(II) chloride hexahydrate	0.075 M Tris	8.5	0.75 M	Lithium sulfate monohydrate		25 % v/v Glycerol	8.4
H6	1.275 M	Ammonium sulfate	0.085 M Tris	8.5				25 % v/v Glycerol	8.1
H7	0.2 M	Ammonium phosphate monobasic	0.1 M Tris	8.5	50 % v/v	(+/-)-2-Methyl-2,4-pentanediol			6.3
H8			0.075 M Tris	8.5	15 % v/v	Ethanol		25 % v/v Glycerol	8.4
H9	0.008 M	Nickel(II) chloride hexahydrate	0.08 M Tris	8.5	16 % w/v	Polyethylene glycol monomethyl ether 2,000		20 % v/v Glycerol	8.3
H10	0.085 M	Sodium chloride	0.085 M BICINE	9.0	17 % v/v	Polyethylene glycol monomethyl ether 550		15 % v/v Glycerol	9.0
H11			0.095 M BICINE	9.0	1.9 M	Magnesium chloride hexahydrate		5 % v/v Glycerol	7.4
H12			0.07 M BICINE	9.0	1.4 % v/v	1,4-Dioxane	7 % w/v Polyethylene glycol 20,000	30 % v/v Glycerol	9.1