THE CRYOS SUITE

FOR SCREENING OF PROTEIN CRYSTALLIZATION CONDITIONS

The Cryos Suite provides:

- A ready-to-use kit format to which only protein needs to be added, for easy and fast screening
- Ideal conditions for an initial screening to define crystallization conditions of a new protein
- 96 precisely defined chemical solutions at high concentrations to evaluate components' effects on protein solubility
- A spectrum of the most popular chemicals in protein crystallography with conditions based on the work by Jancarik and Kim (1)
- Information about protein solubility (if compared side by side with results of the Classics Suite)
- Solutions containing glycerol as cryoprotectant

The Cryos Suite is available in 1 ml DWBlock and 10 ml tube formats.

The formulations of the 96 conditions of this screen, together with an order number for the 100 ml refill solution for each condition, are found on pages 2 and 3. Optimization reagent stock solutions for each NeXtal crystallization screen are available on our website. Please contact us with any questions about condition formulations or optimization.

1. Jancarik, J., and Kim, S-H. (1991) Sparse matrix sampling: a screening method for crystallization of proteins. J. Appl. Cryst. 24, 411.

THE CRYOS SUITE COMPOSITION TABLE

#	Well	Salt	Buffer	Cryoprotectant	Precipitant	100 ml Refill SKU
1	A1	0.0085 M Cobalt chloride	0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	0.85 M 1,6-Hexanediol	134201-1
2	A2		0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	2.125 M 1,6-Hexanediol	134201-2
3	A3	0.17 M Magnesium chloride	0.085 M Tris pH 8.5	15% (v/v) Glycerol	2.89 M 1,6-Hexanediol	134201-3
4	A4	1.7 M Ammonium sulfate		15% (v/v) Glycerol	4.25% (v/v) Isopropanol	134201-4
5	A5		0.085 M HEPES sodium salt pH 7.5	15% (v/v) Glycerol	8.5% (v/v) Isopropanol; 17% (w/v) PEG 4000	134201-5
6	A6	0.14 M Calcium chloride	0.07 M Sodium acetate pH 4.6	30% (v/v) Glycerol	14% (v/v) Isopropanol	134201-6
7	A7		0.095 M tri-Sodium citrate pH 5.6	5% (v/v) Glycerol	19% (v/v) Isopropanol; 19% (w/v) PEG 4000	134201-7
8	A8	0.14 M tri-Sodium citrate	0.07 M HEPES sodium salt pH 7.5	30% (v/v) Glycerol	14% (v/v) Isopropanol	134201-8
9	A9	0.14 M tri-Sodium citrate	0.07 M Sodium cacodylate pH 6.5	30% (v/v) Glycerol	21% (v/v) Isopropanol	134201-9
10	A10	0.18 M Magnesium chloride	0.09 M HEPES sodium salt pH 7.5	10% (v/v) Glycerol	27% (v/v) Isopropanol	134201-10
11	A11	0.16 M Ammonium acetate	0.08 M Tris·HCl pH 8.5	20% (v/v) Glycerol	24% (v/v) Isopropanol	134201-11
12	A12	1.275 M Sodium chloride		15% (v/v) Glycerol	8.5% (v/v) Ethanol	134201-12
13	B1		0.085 M Tris pH 8.5	15% (v/v) Glycerol	17% (v/v) Ethanol	134201-13
14	B2			15% (v/v) Glycerol	21.25% (v/v) Ethylene glycol	134201-14
15	B3	0.018 M Calcium chloride	0.09 M Sodium acetate pH 4.6	10% (v/v) Glycerol	27% (v/v) MPD	134201-15
16	B4	0.17 M Sodium chloride	0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	25.5% (v/v) MPD	134201-16
17	B5	0.18 M Ammonium acetate	0.09 M tri-Sodium citrate pH 5.6	10% (v/v) Glycerol	27% (v/v) MPD	134201-17
18	B6	0.18 M Magnesium acetate	0.09 M Sodium cacodylate pH 6.5	10% (v/v) Glycerol	27% (v/v) MPD	134201-18
19	B7	0.18 M tri-Sodium citrate	0.09 M HEPES sodium salt pH 7.5	10% (v/v) Glycerol	27% (v/v) MPD	134201-19
20	B8	0.425 M Ammonium sulfate	0.085 M HEPES pH 7.5	15% (v/v) Glycerol	25.5% (v/v) MPD	134201-20
21	B9	0.17 M Ammonium phosphate	0.085 M Tris pH 8.5	15% (v/v) Glycerol	42.5% (v/v) MPD	134201-21
22	B10		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	59.5% (v/v) MPD	134201-22
23	B11		0.085 M Tris pH 8.5	15% (v/v) Glycerol	21.25% (v/v) tert-Butanol	134201-23
24	B12		0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	29.75% (v/v) tert-Butanol	134201-24
25	C1			35% (v/v) Glycerol	0.26 M Ammonium phosphate	134201-25
26	C2		0.07 M tri-Sodium citrate pH 5.6	30% (v/v) Glycerol	0.7 M Ammonium phosphate	134201-26
27	C3		0.08 M Tris·HCl pH 8.5	20% (v/v) Glycerol	1.6 M Ammonium phosphate	134201-27
28	C4		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	1.7 M Ammonium formate	134201-28
29	C5		0.08 M Sodium acetate pH 4.6	20% (v/v) Glycerol	1.6 M Ammonium sulfate	134201-29
30	C6		0.075 M Tris·HCl pH 8.5	25% (v/v) Glycerol	1.5 M Ammonium sulfate	134201-30
31	C7			25% (v/v) Glycerol	1.5 M Ammonium sulfate	134201-31
32	C8	0.085 M Sodium chloride	0.085 M HEPES pH 7.5	15% (v/v) Glycerol	1.36 M Ammonium sulfate	134201-32
33	C9	0.0085 M Cobalt chloride	0.085 M MES pH 6.5	15% (v/v) Glycerol	1.53 M Ammonium sulfate	134201-33
34	C10	0.17 M K/Na tartrate	0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	1.7 M Ammonium sulfate	134201-34
35	C11			15% (v/v) Glycerol	0.85 M Imidazole pH 7.0	134201-35
36	C12			35% (v/v) Glycerol	0.26 M K/Na tartrate	134201-36
37	D1		0.065 M HEPES sodium salt pH 7.5	35% (v/v) Glycerol	0.52 M K/Na tartrate	134201-37
38	D2		0.07 M Imidazole pH 6.5	30% (v/v) Glycerol	0.7 M Sodium acetate	134201-38
39	D3	0.0425 M Cadmium sulfate	0.085 M HEPES pH 7.5	15% (v/v) Glycerol	0.85 M Sodium acetate	134201-39
40	D4		0.07 M Sodium cacodylate pH 6.5	30% (v/v) Glycerol	0.98 M Sodium acetate	134201-40
41	D5		0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	1.7 M Sodium chloride	134201-41
42	D6	0.085MSodiumphosphate;0.085M Potassium phosphate	0.085 M MES pH 6.5	15% (v/v) Glycerol	1.7 M Sodium chloride	134201-42
43	D7		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	3.655 M Sodium chloride	134201-43
44	D8		0.09 M HEPES sodium salt pH 7.5	10% (v/v) Glycerol	1.26 M tri-Sodium citrate	134201-44
45	D9			15% (v/v) Glycerol	1.36 M tri-Sodium citrate pH 6.5	134201-45
46	D10	0.6 M Sodium phosphate; 0.6 M Potassium phosphate	0.075 M HEPES sodium salt pH 7.5	25% (v/v) Glycerol		134201-46
47	D11		0.07 M Sodium acetate pH 4.6	30% (v/v) Glycerol	1.4 M Sodium formate	134201-47
48	D12			10% (v/v) Glycerol	3.6 M Sodium formate	134201-48
49	E1		0.085 M Bicine pH 9	15% (v/v) Glycerol	1.7% (v/v) Dioxane; 8.5% (w/v) PEG 20000	134201-49

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#	Well	Salt	Buffer	Cryoprotectant	Precipitant	100 ml Refill SKU
50	E2	1.36 M Ammonium sulfate	0.085 M MES pH 6.5	15% (v/v) Glycerol	8.5% (v/v) Dioxane	134201-50
51	E3			15% (v/v) Glycerol	29.75% (v/v) Dioxane	134201-51
52	E4	0.425 M Sodium chloride	0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	1.7% (v/v) Ethylene imine polymer	134201-52
53	E5	1.275 M Ammonium sulfate	0.085 M Tris pH 8.5	15% (v/v) Glycerol	10.2% (v/v) Glycerol	134201-53
54	E6	0.425 M Sodium chloride; 0.085 Magnesium chloride		15% (v/v) Glycerol	0.0085 M CTAB	134201-54
55	E7	0.0085 M Ferric chloride	0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	8.5% (v/v) Jeffamine M-600;	134201-55
56	E8		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	17% (v/v) Jeffamine M-600;	134201-56
57	E9	0.425 M Ammonium sulfate	0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	0.85 M Lithium sulfate;	134201-57
58	E10	0.0085 M Nickel chloride	0.085 M Tris pH 8.5	15% (v/v) Glycerol	0.85 M Lithium sulfate;	134201-58
59	E11		0.075 M HEPES sodium salt pH 7.5	25% (v/v) Glycerol	1.125 M Lithium sulfate	134201-59
60	E12		0.085 M Bicine pH 9.0	15% (v/v) Glycerol	1.7 M Magnesium chloride	134201-60
61	F1			15% (v/v) Glycerol	0.17 M Magnesium formate	134201-61
62	F2		0.085 M MES pH 6.5	15% (v/v) Glycerol	1.36 M Magnesium sulfate	134201-62
63	F3		0.065 M Tris·HCl pH 8.5	35% (v/v) Glycerol	5.2% (w/v) PEG 8000	134201-63
64	F4		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	8.5% (w/v) PEG 8000	134201-64
65	F5	0.4 M Lithium sulfate		20% (v/v) Glycerol	12% (w/v) PEG 8000	134201-65
66	F6	0.16 M Zinc acetate	0.08 M Sodium cacodylate pH 6.5	20% (v/v) Glycerol	14.4% (w/v) PEG 8000	134201-66
67	F7	0.16 M Calcium acetate	0.08 M Sodium cacodylate pH 6.5	20% (v/v) Glycerol	14.4% (w/v) PEG 8000	134201-67
68	F8	0.16 M Magnesium acetate	0.08 M Sodium cacodylate pH 6.5	20% (v/v) Glycerol	16% (w/v) PEG 8000	134201-68
69	F9	0.04 M Potassium phosphate		20% (v/v) Glycerol	16% (w/v) PEG 8000	134201-69
70	F10	0.17 M Ammonium sulfate	0.085 M Sodium cacodylate pH 6.5	15% (v/v) Glycerol	25.5% (w/v) PEG 8000	134201-70
71	F11	0.17 M Sodium acetate	0.085 M Sodium cacodylate pH 6.5	15% (v/v) Glycerol	25.5% (w/v) PEG 8000	134201-71
72	F12	0.17 M Ammonium sulfate		15% (v/v) Glycerol	25.5% (w/v) PEG 8000	134201-72
73	G1	1.7 M Ammonium sulfate	0.085 M HEPES sodium salt pH 7.5	15% (v/v) Glycerol	1.7% (v/v) PEG 400	134201-73
74	G2	0.19 M Calcium chloride	0.095 M HEPES sodium salt pH 7.5	5% (v/v) Glycerol	26.6% (v/v) PEG 400	134201-74
75	G3	0.085 M Cadmium chloride	0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	25.5% (v/v) PEG 400	134201-75
76	G4	0.18 M Magnesium chloride	0.09 M HEPES sodium salt pH 7.5	10% (v/v) Glycerol	27% (v/v) PEG 400	134201-76
77	G5	0.18 M tri-Sodium citrate	0.09 M Tris·HCl pH 8.5	10% (v/v) Glycerol	27% (v/v) PEG 400	134201-77
78	G6	0.085 M Sodium chloride	0.085 M Bicine pH 9.0	15% (v/v) Glycerol	17% (w/v) PEG 550 MME	134201-78
79	G7	0.0085 M Zinc sulfate	0.085 M MES pH 6.5	15% (v/v) Glycerol	21.25% (w/v) PEG 550 MME	134201-79
80	G8			15% (v/v) Glycerol	8.5% (w/v) PEG 1000; 8.5% (w/v) PEG 8000	134201-80
81	G9			20% (v/v) Glycerol	24% (w/v) PEG 1500	134201-81
82	G10	0.0085 M Nickel chloride	0.085 M Tris pH 8.5	15% (v/v) Glycerol	17% (w/v) PEG 2000 MME	134201-82
83	G11	0.17 M Ammonium sulfate	0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	25.5% (w/v) PEG 2000 MME	134201-83
84	G12		0.07 M Sodium acetate pH 4.6	30% (v/v) Glycerol	5.6% (w/v) PEG 4000	134201-84
85	H1	0.16 M Ammonium sulfate	0.08 M Sodium acetate pH 4.6	20% (v/v) Glycerol	20% (w/v) PEG 4000	134201-85
86	H2	0.17 M Ammonium acetate	0.085 M Sodium acetate pH 4.6	15% (v/v) Glycerol	25.5% (w/v) PEG 4000	134201-86
87	H3	0.17 M Ammonium acetate	0.085 M tri-Sodium citrate pH 5.6	15% (v/v) Glycerol	25.5% (w/v) PEG 4000	134201-87
88	H4	0.16 M Magnesium chloride	0.08 M Tris·HCl pH 8.5	20% (v/v) Glycerol	24% (w/v) PEG 4000	134201-88
89	H5	0.17 M Lithium sulfate	0.085 M Tris·HCl pH 8.5	15% (v/v) Glycerol	25.5% (w/v) PEG 4000	134201-89
90	H6	0.17 M Sodium acetate	0.085 M Tris·HCl pH 8.5	15% (v/v) Glycerol	25.5% (w/v) PEG 4000	134201-90
91	H7	0.17 M Ammonium sulfate		15% (v/v) Glycerol	25.5% (w/v) PEG 4000	134201-91
92	H8	0.17 M Ammonium sulfate	0.085 M MES pH 6.5	15% (v/v) Glycerol	25.5% (w/v) PEG 5000 MME	134201-92
93	H9		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	8.5% (w/v) PEG 6000; 4.25% (v/v) MPD	134201-93
94	H10	1.6 M Sodium chloride		20% (v/v) Glycerol	8% (w/v) PEG 6000	134201-94
95	H11		0.085 M HEPES pH 7.5	15% (v/v) Glycerol	17% (w/v) PEG 10000; 6.8% (v/v) Ethylene glycol	134201-95
96	H12		0.085 M MES pH 6.5	15% (v/v) Glycerol	10.2% (w/v) PEG 20000	134201-96

Other NeXtal Crystallization Screens Available

- The Classics Suite
- The Classics Lite Suite
- The Classics II Suite
- The Cryos Suite
- The PEGs Suite
- The $AmSO_4$ Suite
- The MPD Suite
- The Anions Suite
- The Cations Suite
- The pHClear Suite
- The pHClear II Suite
- The MbClass Suite
- The MbClass II Suite
- The Protein Complex Suite
- The PEGs II Suite
- The ComPAS Suite
- The PACT Suite
- The Nucleix Suite
- The JCSG+ Suite
- The JCSG Core I-IV Suites
- The Opti-Salts Suite