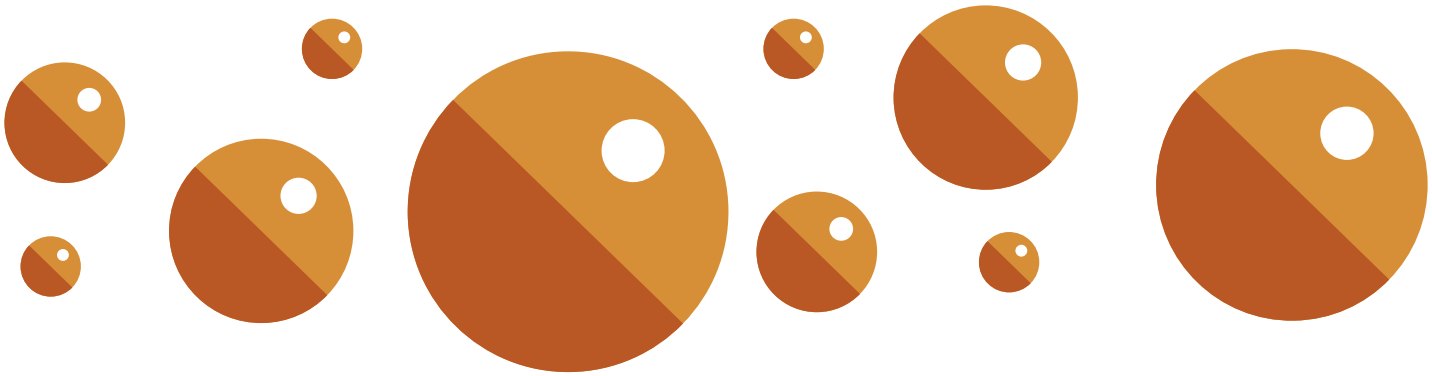

THE CLASSICS SUITE

FOR SCREENING OF PROTEIN CRYSTALLIZATION CONDITIONS

The Classics 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 Lite Suite)

The Classics 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 CLASSICS SUITE COMPOSITION TABLE

#	Well	Salt	Buffer	Precipitant	100 ml Refill SKU
1	A1	0.01 M Cobalt chloride	0.1 M Sodium acetate pH 4.6	1.0 M 1,6-Hexanediol	134001-1
2	A2		0.1 M tri-Sodium citrate pH 5.6	2.5 M 1,6-Hexanediol	134001-2
3	A3	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	3.4 M 1,6-Hexanediol	134001-3
4	A4			5% (v/v) Isopropanol; 2.0 M Ammonium sulfate	134001-4
5	A5		0.1 M HEPES sodium salt pH 7.5	10% (v/v) Isopropanol; 20% (w/v) PEG 4000	134001-5
6	A6	0.2 M Calcium chloride	0.1 M Sodium acetate pH 4.6	20% (v/v) Isopropanol	134001-6
7	A7		0.1 M tri-Sodium citrate pH 5.6	20% (v/v) Isopropanol; 20% (w/v) PEG 4000	134001-7
8	A8	0.2 M tri-Sodium citrate	0.1 M HEPES sodium salt pH 7.5	20% (v/v) Isopropanol	134001-8
9	A9	0.2 M tri-Sodium citrate	0.1 M Sodium cacodylate pH 6.5	30% (v/v) Isopropanol	134001-9
10	A10	0.2 M Magnesium chloride	0.1 M HEPES sodium salt pH 7.5	30% (v/v) Isopropanol	134001-10
11	A11	0.2 M Ammonium acetate	0.1 M Tris·HCl pH 8.5	30% (v/v) Isopropanol	134001-11
12	A12			10% (v/v) Ethanol; 1.5 M Sodium chloride	134001-12
13	B1		0.1 M Tris pH 8.5	20% (v/v) Ethanol	134001-13
14	B2			25% (v/v) Ethylene glycol	134001-14
15	B3	0.02 M Calcium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) MPD	134001-15
16	B4	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) MPD	134001-16
17	B5	0.2 M Ammonium acetate	0.1 M tri-Sodium citrate pH 5.6	30% (v/v) MPD	134001-17
18	B6	0.2 M Magnesium acetate	0.1 M Sodium cacodylate pH 6.5	30% (v/v) MPD	134001-18
19	B7	0.2 M tri-Sodium citrate	0.1 M HEPES sodium salt pH 7.5	30% (v/v) MPD	134001-19
20	B8	0.5 M Ammonium sulfate	0.1 M HEPES pH 7.5	30% (v/v) MPD	134001-20
21	B9	0.2 M Ammonium phosphate	0.1 M Tris pH 8.5	50% (v/v) MPD	134001-21
22	B10		0.1 M HEPES pH 7.5	70% (v/v) MPD	134001-22
23	B11		0.1 M Tris pH 8.5	25% (v/v) tert-Butanol	134001-23
24	B12		0.1 M tri-Sodium citrate pH 5.6	35% (v/v) tert-Butanol	134001-24
25	C1			0.4 M Ammonium phosphate	134001-25
26	C2		0.1 M tri-Sodium citrate pH 5.6	1.0 M Ammonium phosphate	134001-26
27	C3		0.1 M Tris·HCl pH 8.5	2.0 M Ammonium phosphate	134001-27
28	C4		0.1 M HEPES pH 7.5	2.0 M Ammonium formate	134001-28
29	C5		0.1 M Sodium acetate pH 4.6	2.0 M Ammonium sulfate	134001-29
30	C6		0.1 M Tris·HCl pH 8.5	2.0 M Ammonium sulfate	134001-30
31	C7			2.0 M Ammonium sulfate	134001-31
32	C8	0.1 M Sodium chloride	0.1 M HEPES pH 7.5	1.6 M Ammonium sulfate	134001-32
33	C9	0.01 M Cobalt chloride	0.1 M MES pH 6.5	1.8 M Ammonium sulfate	134001-33
34	C10	0.2 M K/Na tartrate	0.1 M tri-Sodium citrate pH 5.6	2.0 M Ammonium sulfate	134001-34
35	C11			1.0 M Imidazole pH 7.0	134001-35
36	C12			0.4 M K/Na tartrate	134001-36
37	D1		0.1 M HEPES sodium salt pH 7.5	0.8 M K/Na tartrate	134001-37
38	D2		0.1 M Imidazole pH 6.5	1.0 M Sodium acetate	134001-38
39	D3	0.05 M Cadmium sulfate	0.1 M HEPES pH 7.5	1.0 M Sodium acetate	134001-39
40	D4		0.1 M Sodium cacodylate pH 6.5	1.4 M Sodium acetate	134001-40
41	D5		0.1 M Sodium acetate pH 4.6	2.0 M Sodium chloride	134001-41
42	D6	0.1 M Sodium phosphate; 0.1 M Potassium phosphate	0.1 M MES pH 6.5	2.0 M Sodium chloride	134001-42
43	D7		0.1 M HEPES pH 7.5	4.3 M Sodium chloride	134001-43
44	D8		0.1 M HEPES sodium salt pH 7.5	1.4 M tri-Sodium citrate	134001-44
45	D9			1.6 M tri-Sodium citrate pH 6.5	134001-45
46	D10		0.1 M HEPES sodium salt pH 7.5	0.8 M Sodium phosphate; 0.8 M Potassium phosphate	134001-46
47	D11		0.1 M Sodium acetate pH 4.6	2.0 M Sodium formate	134001-47
48	D12			4.0 M Sodium formate	134001-48

THE CLASSICS SUITE COMPOSITION TABLE

#	Well	Salt	Buffer	Precipitant	100 ml Refill SKU
49	E1		0.1 M Bicine pH 9.0	2%(v/v)Dioxane;10%(w/v)PEG20000	134001-49
50	E2		0.1 M MES pH 6.5	10% (v/v) Dioxane; 1.6 M Ammonium sulfate	134001-50
51	E3			35% (v/v) Dioxane	134001-51
52	E4	0.5 M Sodium chloride	0.1 M tri-Sodium citrate pH 5.6	2% (v/v) Ethylene imine polymer	134001-52
53	E5		0.1 M Tris pH 8.5	12% (v/v) Glycerol; 1.5 M Ammonium sulfate	134001-53
54	E6	0.5 M Sodium chloride; 0.01 M Magnesium chloride		0.01 M CTAB	134001-54
55	E7	0.01 M Ferric chloride	0.1 M tri-Sodium citrate pH 5.6	10 %(v/v) Jeffamine M-600	134001-55
56	E8		0.1 M HEPES pH 7.5	20 %(v/v) Jeffamine M-600	134001-56
57	E9	0.5 M Ammonium sulfate	0.1 M tri-Sodium citrate pH 5.6	1.0 M Lithium sulfate	134001-57
58	E10	0.01 M Nickel chloride	0.1 M TRIS pH 8.5	1.0 M Lithium sulfate	134001-58
59	E11		0.1 M HEPES sodium salt pH 7.5	1.5 M Lithium sulfate	134001-59
60	E12		0.1 M BICINE pH 9.0	2.0 M Magnesium chloride	134001-60
61	F1			0.2 M Magnesium formate	134001-61
62	F2		0.1 M MES pH 6.5	1.6 M Magnesium sulfate	134001-62
63	F3		0.1 M TRIS.HCl pH 8.5	8 %(w/v) PEG 8000	134001-63
64	F4		0.1 M HEPES pH 7.5	10 %(w/v) PEG 8000	134001-64
65	F5	0.5 M Lithium sulfate		15 %(w/v) PEG 8000	134001-65
66	F6	0.2 M Zinc acetate	0.1 M Sodium cacodylate pH 6.5	18 %(w/v) PEG 8000	134001-66
67	F7	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	18 %(w/v) PEG 8000	134001-67
68	F8	0.2 M Magnesium acetate	0.1 M Sodium cacodylate pH 6.5	20 %(w/v) PEG 8000	134001-68
69	F9	0.05 M Potassium phosphate		20 %(w/v) PEG 8000	134001-69
70	F10	0.2 M Ammonium sulfate	0.1 M Sodium cacodylate pH 6.5	30 %(w/v) PEG 8000	134001-70
71	F11	0.2 M Sodium acetate	0.1 M Sodium cacodylate pH 6.5	30 %(w/v) PEG 8000	134001-71
72	F12	0.2 M Ammonium sulfate		30 %(w/v) PEG 8000	134001-72
73	G1	2.0 M Ammonium sulfate	0.1 M HEPES sodium salt pH 7.5	2 %(v/v) PEG 400	134001-73
74	G2	0.2 M Calcium chloride	0.1 M HEPES sodium salt pH 7.5	28 %(v/v) PEG 400	134001-74
75	G3	0.1 M Cadmium chloride	0.1 M Sodium acetate pH 4.6	30 %(v/v) PEG 400	134001-75
76	G4	0.2 M Magnesium chloride	0.1 M HEPES sodium salt pH 7.5	30 %(v/v) PEG 400	134001-76
77	G5	0.2 M tri-Sodium citrate	0.1 M TRIS.HCl pH 8.5	30 %(v/v) PEG 400	134001-77
78	G6	0.1 M Sodium chloride	0.1 M BICINE pH 9.0	20 %(w/v) PEG 550 MME	134001-78
79	G7	0.01 M Zinc sulfate	0.1 M MES pH 6.5	25 %(w/v) PEG 550 MME	134001-79
80	G8			10 %(w/v) PEG 1000; 10 %(w/v) PEG 8000	134001-80
81	G9			30 %(w/v) PEG 1500	134001-81
82	G10	0.01 M Nickel chloride	0.1 M TRIS pH 8.5	20 %(w/v) PEG 2000 MME	134001-82
83	G11	0.2 M Ammonium sulfate	0.1 M Sodium acetate pH 4.6	30 %(w/v) PEG 2000 MME	134001-83
84	G12		0.1 M Sodium acetate pH 4.6	8 %(w/v) PEG 4000	134001-84
85	H1	0.2 M Ammonium sulfate	0.1 M Sodium acetate pH 4.6	25 %(w/v) PEG 4000	134001-85
86	H2	0.2 M Ammonium acetate	0.1 M Sodium acetate pH 4.6	30 %(w/v) PEG 4000	134001-86
87	H3	0.2 M Ammonium acetate	0.1 M tri-Sodium citrate pH 5.6	30 %(w/v) PEG 4000	134001-87
88	H4	0.2 M Magnesium chloride	0.1 M TRIS.HCl pH 8.5	30 %(w/v) PEG 4000	134001-88
89	H5	0.2 M Lithium sulfate	0.1 M TRIS.HCl pH 8.5	30 %(w/v) PEG 4000	134001-89
90	H6	0.2 M Sodium acetate	0.1 M TRIS.HCl pH 8.5	30 %(w/v) PEG 4000	134001-90
91	H7	0.2 M Ammonium sulfate		30 %(w/v) PEG 4000	134001-91
92	H8	0.2 M Ammonium sulfate	0.1 M MES pH 6.5	30 %(w/v) PEG 5000 MME	134001-92
93	H9		0.1 M HEPES pH 7.5	10 %(w/v) PEG 6000; 5 %(v/v) MPD	134001-93
94	H10	2.0 M Sodium chloride		10 %(w/v) PEG 6000	134001-94
95	H11		0.1 M HEPES pH 7.5	20 %(w/v) PEG 10000; 8 %(v/v) Ethylene glycol	134001-95
96	H12		0.1 M MES pH 6.5	12 %(w/v) PEG 20000	134001-96

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

NeXtal Biotechnologies
6201 Trust Drive
Holland, OH 43528
P: +1.419.794.7890
F: +1.419.491.1002
W: nextalbiotech.com
E: customerservice@nextalbiotech.com

NeXtal