



# *THE JCSG CORE III SUITE*

**FOR INITIAL SCREENING USING AN OPTIMIZED SET OF CONDITIONS**



## **The JCSG Core Suites provide:**

- Conditions giving the highest hit rates at the Joint Center for Structural Genomics
- Optimized suites based on over half a million crystallization trials
- Maximized reproducibility through online access to production reports

The JCSG Core Suites - split into four screens of 96 unique conditions - are the result of analyzing over 500,000 high-throughput crystallization experiments performed at the JCSG (1). The 384 crystallization conditions that provided the highest hit rates in initial screening were chosen to form the screens.

The JCSG Core Suites are 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. P Lesley, S.A., and Wilson, I.A. (2005) Protein production and crystallization at the joint center for structural genomics. J. Struct. Funct. Genomics. 6, 71.

 Fast, simple, consistent crystallography. **NO SURPRISES**



**NeXtal**

# THE JCSG CORE III SUITE COMPOSITION TABLE

#	Well	Salt	Buffer	Precipitant	Final pH	Refill-Hit Solution SKU
1	A1		0.1 M CAPS pH 10.5	30% (v/v) PEG 400		136401-01
2	A2		0.1M CHES pH 9.5	40% (v/v) PEG 600		136401-02
3	A3		0.1M CHES pH 9.5	50% (v/v) PEG 200		136401-03
4	A4		0.1M CHES pH 9.5	30% (w/v) PEG 3000		136401-04
5	A5	0.2 M Sodium chloride	0.1M CHES pH 9.5	50% (v/v) PEG 400		136401-05
6	A6	0.2 M di-Potassium hydrogen phosphate		20% (w/v) PEG 3350		136401-06
7	A7	0.2M di-Sodium hydrogen phosphate		20% (w/v) PEG 3350		136401-07
8	A8		0.1 M Bicine pH 8.5	40% (v/v) MPD	9.0	136401-08
9	A9		0.1 M Bicine pH 8.5	5% (w/v) PEG 6000	9.0	136401-09
10	A10	0.2 M Ammonium sulfate	0.1M CAPS pH 10.5	30% (v/v) PEG 200		136401-10
11	A11		0.1 M Tris pH 8.5	20% (w/v) PEG 1000		136401-11
12	A12		0.1 M Tris pH 8.5	1.0M di-Ammonium hydrogen phosphate		136401-12
13	B1	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	20% (w/v) PEG 8000		136401-13
14	B2	0.2 M Lithium sulfate	0.1 M Tris pH 8.5	1.26 M Ammonium sulfate		136401-14
15	B3	0.01 M Nickel chloride	0.1 M Tris pH 8.5	1.0 M Lithium sulfate		136401-15
16	B4	1.6 M Ammonium dihydrogen phosphate	0.08 M Tris-HCl pH 8.5	20% (v/v) Glycerol		136401-16
17	B5	0.2 M Sodium acetate	0.1 M Tris-HCl pH 8.5	30% (w/v) PEG 4000		136401-17
18	B6	1.0 M Sodium citrate	0.1 M Imidazole pH 8.0			136401-18
19	B7	0.2 M Magnesium chloride	0.1 M Imidazole pH 8.0	15% (v/v) Ethanol		136401-19
20	B8	0.2 M Lithium sulfate	0.1 M Imidazole pH 8.0	10% (w/v) PEG 3000		136401-20
21	B9		0.1 M Tris pH 8.5	40% (v/v) MPD	8.0	136401-21
22	B10		0.1 M Tris pH 8.5	2.4 M Ammonium sulfate	8.0	136401-22
23	B11	0.2 M di-Ammonium hydrogen phosphate		20% (w/v) PEG 3350		136401-23
24	B12	0.2 M Sodium chloride	0.1 M HEPES pH 7.5	30% (v/v) PEG 400		136401-24
25	C1	0.05 M Calcium acetate	0.1M Imidazole pH 8.0	35% (v/v) 2-Ethoxyethanol		136401-25
26	C2	0.2 M tri-Sodium citrate	0.1 M HEPES pH 7.5	10% (v/v) Isopropanol		136401-26
27	C3	0.1 M Sodium chloride	0.1 M HEPES pH 7.5	1.6 M Ammonium sulfate		136401-27
28	C4	0.18 M Magnesium chloride	0.09 M Sodium HEPES pH 7.5	10% (v/v) Glycerol; 27% (v/v) Isopropanol		136401-28
29	C5	1.4 M tri-Sodium citrate	0.1 M Sodium HEPES pH 7.5			136401-29
30	C6	0.2 M Calcium chloride	0.1 M Sodium HEPES pH 7.5	28% (v/v) PEG 400		136401-30
31	C7	0.2 M Magnesium chloride	0.1 M Sodium HEPES pH 7.5	30% (v/v) Isopropanol		136401-31
32	C8		0.1M Imidazole pH 8.0	40% (v/v) PEG 400		136401-32
33	C9	10% (v/v) Glycerol	0.1 M HEPES pH 7.5	5% (w/v) PEG 3000; 30% (v/v) PEG 400		136401-33
34	C10	0.2 M Sodium chloride	0.1 M Tris pH 7.0	1.0 M Sodium citrate		136401-34
35	C11		0.1 M Tris pH 7.0	15% (v/v) Ethanol		136401-35
36	C12	0.2 M Sodium chloride	0.1 M Tris pH 7.0	35% (v/v) MPD		136401-36
37	D1	0.2 M Sodium chloride	0.1M Imidazole pH 8.0	1.0 M Potassium/Sodium tartrate		136401-37
38	D2		0.1 M HEPES pH 6.5	40% (v/v) MPD	7.0	136401-38
39	D3		0.1 M HEPES pH 6.5	20% (v/v) MPD	7.0	136401-39
40	D4		1.0 M Imidazole pH 7.0			136401-40
41	D5	0.4 M Potassium/Sodium tartrate				136401-41
42	D6		0.1 M HEPES pH 6.5	2.4 M Ammonium sulfate	7.0	136401-42
43	D7	1.0 M Lithium chloride	0.1 M HEPES pH 7.0	20% (w/v) PEG 6000	7.0	136401-43
44	D8		0.1 M HEPES pH 6.5	5% (w/v) PEG 6000	7.0	136401-44
45	D9		0.1 M Sodium cacodylate pH 6.5	35% (v/v) 2-Ethoxyethanol		136401-45
46	D10		0.1 M Tris pH 7.0	50% (v/v) PEG 200		136401-46
47	D11	0.2 M Sodium chloride	0.1M Sodium/Potassium phosphate pH 6.2	35% (v/v) 2-Ethoxyethanol		136401-47
48	D12	1.0 M Sodium citrate	0.1 M Sodium cacodylate pH 6.5			136401-48
49	E1		0.1 M Sodium cacodylate pH 6.5	1.26 M Ammonium sulfate		136401-49

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#	Well	Salt	Buffer	Precipitant	Final pH	Refill-Hit Solution SKU
50	E2	0.01 M Cobalt chloride	0.1 M MES pH 6.5	1.8 M Ammonium sulfate		136401-50
51	E3		0.1 M MES pH 6.5	1.6 M Ammonium sulfate; 10% (v/v) 1,4-Dioxane		136401-51
52	E4		0.1 M MES pH 6.5	1.6 M Magnesium sulfate		136401-52
53	E5	0.16 M Calcium acetate	0.08M Sodium cacodylate pH 6.5	14.4% (w/v) PEG 8000; 20% (v/v) Glycerol		136401-53
54	E6	0.18 M Magnesium acetate	0.09M Sodium cacodylate pH 6.5	27% (v/v) MPD; 10% (v/v) Glycerol		136401-54
55	E7	0.16 M Magnesium acetate	0.08M Sodium cacodylate pH 6.5	16% (w/v) PEG 8000; 20% (v/v) Glycerol		136401-55
56	E8	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	18% (w/v) PEG 8000		136401-56
57	E9	0.2 M Sodium acetate	0.1 M Sodium cacodylate pH 6.5	30% (w/v) PEG 8000		136401-57
58	E10		0.1 M Imidazole pH 6.5	1.0 M Sodium acetate		136401-58
59	E11	0.2 M Magnesium acetate	0.1 M Sodium cacodylate pH 6.5	30% (v/v) MPD		136401-59
60	E12		0.1 M Sodium cacodylate pH 6.5	1.4 M Sodium acetate		136401-60
61	F1		0.1M MES pH 6.0	40% (v/v) PEG 400; 5% (w/v) PEG 3000		136401-61
62	F2		0.1M Sodium citrate pH 5.5	35% (v/v) 2-Ethoxyethanol		136401-62
63	F3		0.1M Sodium/Potassium phosphate pH 6.2	35% (v/v) MPD		136401-63
64	F4		0.1M Sodium/Potassium phosphate pH 6.2	2.5 M Sodium chloride		136401-64
65	F5	0.2 M Calcium acetate	0.1 M MES pH 6.0	10% (v/v) Isopropanol		136401-65
66	F6	0.2 M Zinc acetate	0.1 M MES pH 6.0	10% (w/v) PEG 8000		136401-66
67	F7		0.1 M MES pH 6.0	3.2 M Ammonium sulfate		136401-67
68	F8		0.1 M MES pH 5.0	2.4 M Ammonium sulfate	6.0	136401-68
69	F9		0.1 M MES pH 5.0	0.8 M Ammonium sulfate	6.0	136401-69
70	F10	0.2 M Potassium/Sodium tartrate	0.1 M Sodium citrate pH 5.6	2.0 M Ammonium sulfate		136401-70
71	F11	0.17 M Ammonium acetate	0.085 M Sodium citrate pH 5.6	25.5% (w/v) PEG 4000; 15% (v/v) Glycerol		136401-71
72	F12		0.1 M Sodium citrate pH 5.6	1.0M Ammonium dihydrogen phosphate		136401-72
73	G1		0.1 M Sodium citrate pH 5.5	2.0 M Ammonium sulfate		136401-73
74	G2		0.1M Sodium acetate pH 4.5	40% (v/v) PEG 400		136401-74
75	G3		0.1M Tris pH 7.0	40% (v/v) PEG 300; 5% (w/v) PEG 1000		136401-75
76	G4		0.1M Phosphate-citrate pH 4.2	40% (v/v) PEG 600		136401-76
77	G5	0.2 M Calcium chloride		20% (w/v) PEG 3350		136401-77
78	G6		0.1 M Sodium acetate pH 5.0	40% (v/v) MPD	5.0	136401-78
79	G7		0.1 M Citric Acid pH 5.0	1.0 M Lithium chloride	5.0	136401-79
80	G8		0.1 M Citric Acid pH 4.0	30% (w/v) PEG 6000	5.0	136401-80
81	G9		0.04 M Potassium dihydrogen phosphate	16% (w/v) PEG 8000; 20% (v/v) Glycerol		136401-81
82	G10	0.1 M Cadmium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) PEG 400		136401-82
83	G11	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) MPD		136401-83
84	G12	2.0 M Sodium chloride	0.1 M Sodium acetate pH 4.6			136401-84
85	H1	2.0 M Sodium formate	0.1 M Sodium acetate pH 4.6			136401-85
86	H2	0.2 M Calcium chloride	0.1 M Sodium acetate pH 4.6	20% (v/v) Isopropanol		136401-86
87	H3	0.2 M Lithium sulfate	0.1 M Sodium acetate pH 4.5	2.5 M Sodium chloride		136401-87
88	H4		0.1 M Sodium acetate pH 4.5	20% (v/v) Butanediol		136401-88
89	H5	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.5	1.26 M Ammonium sulfate		136401-89
90	H6		0.26 M Ammonium dihydrogen phosphate	35% (v/v) Glycerol		136401-90
91	H7		0.1 M Citric Acid pH 2.5	40% (v/v) MPD	4.0	136401-91
92	H8		0.1 M Citric Acid pH 3.5	2.4 M Ammonium sulfate	4.0	136401-92
93	H9		0.1 M Citric Acid pH 3.5	1.6 M Ammonium sulfate	4.0	136401-93
94	H10	2.0 M Sodium chloride		10% (w/v) PEG 6000		136401-94
95	H11	0.2 M Ammonium sulfate		30% (w/v) PEG 4000		136401-95
96	H12	0.2 M Ammonium sulfate		30% (w/v) PEG 8000		136401-96



### Other NeXtal Crystallization Screens Available

- The Classics Suite
- The Classics Lite Suite
- The Classics II Suite
- The Cryos Suite
- The PEGs Suite
- The AmSO<sub>4</sub> 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 CompPAS Suite
- The PACT Suite
- The Nucleix Suite
- The JCSG+ Suite
- The JCSG Core I-IV Suites
- The Opti-Salts Suite



 Fast, simple, consistent crystallography. **NO SURPRISES**

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