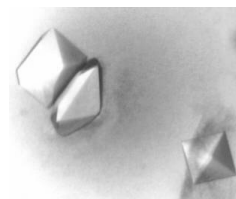


The JCSG Core IV Suite

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.

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.

Location of Refill-Hit Solutions in 24-Well and 96-Well Plate Formats

	1	2	3	4	5	6
A	1	2	3	4	5	6
B	7	8	9	10	11	12
C	13	14	15	16	17	18
D	19	20	21	22	23	24

24-well plate 1 of 4

	1	2	3	4	5	6
A	25	26	27	28	29	30
B	31	32	33	34	35	36
C	37	38	39	40	41	42
D	43	44	45	46	47	48

24-well plate 2 of 4

	1	2	3	4	5	6
A	49	50	51	52	53	54
B	55	56	57	58	59	60
C	61	62	63	64	65	66
D	67	68	69	70	71	72

24-well plate 3 of 4

	1	2	3	4	5	6
A	73	74	75	76	77	78
B	79	80	81	82	83	84
C	85	86	87	88	89	90
D	91	92	93	94	95	96

24-well plate 4 of 4

	1	2	3	4	5	6	7	8	9	10	11	12
A	1	2	3	4	5	6	7	8	9	10	11	12
B	13	14	15	16	17	18	19	20	21	22	23	24
C	25	26	27	28	29	30	31	32	33	34	35	36
D	37	38	39	40	41	42	43	44	45	46	47	48
E	49	50	51	52	53	54	55	56	57	58	59	60
F	61	62	63	64	65	66	67	68	69	70	71	72
G	73	74	75	76	77	78	79	80	81	82	83	84
H	85	86	87	88	89	90	91	92	93	94	95	96

96-well plate



The JCSG Core IV Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1	0.2 M Lithium sulfate	0.1 M CAPS pH 10.5	2.0 M Ammonium sulfate		136501
2	0.2 M Lithium sulfate	0.1 M Glycine pH 10.5	1.2 M Sodium dihydrogen phosphate; 0.8 M di-Potassium hydrogen phosphate		136502
3		0.1 M CAPS pH 10.5	40% (v/v) MPD		136503
4		0.1 M CHES pH 9.5	10% (w/v) PEG 3000		136504
5	0.2 M Lithium sulfate	0.1 M CHES pH 9.5	1.0 M Sodium/Potassium tartrate		136505
6		0.1 M CHES pH 9.5	30% (v/v) PEG 400		136506
7		0.1 M CHES pH 9.5	15% (v/v) Ethanol		136507
8	0.2 M Sodium citrate	0.1 M CHES pH 9.5	40% (v/v) PEG 300		136508
9		0.1 M CHES pH 9.5	40% (v/v) MPD		136509
10		0.1 M Bicine pH 9.0	1.6 M Ammonium sulfate	9.0	136510
11		0.1 M Bicine pH 9.0	0.8 M Ammonium sulfate	9.0	136511
12		0.1 M Bicine pH 9.0	2.4 M Ammonium sulfate	9.0	136512
13		0.1 M Bicine pH 8.5	10% (w/v) PEG 6000	9.0	136513
14		0.1 M Bicine pH 9.0	2.4 M Ammonium sulfate		136514
15		0.1 M Bicine pH 8.5	30% (w/v) PEG 6000	9.0	136515
16		0.1 M Bicine pH 8.5	65% (v/v) MPD	9.0	136516
17		0.1 M Bicine pH 9.0	2.0 M Magnesium chloride		136517
18		0.1 M Tris pH 8.5	10% (v/v) Isopropanol		136518
19	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	50% (v/v) Ethylene glycol		136519
20	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	25% (v/v) 1,2-Propanediol; 10% (v/v) Glycerol		136520
21	0.2 M Magnesium chloride	0.1 M Tris-HCl pH 8.5	30% (w/v) PEG 4000		136521
22	0.2 M Sodium citrate	0.1 M Tris-HCl pH 8.5	30% (v/v) PEG 400		136522
23	0.2 M Lithium sulfate	0.1 M Tris-HCl pH 8.5	30% (w/v) PEG 4000		136523
24	0.2 M Ammonium acetate	0.1 M Tris-HCl pH 8.5	30% (v/v) Isopropanol		136524
25		0.1 M Tris pH 8.5	1.5 M Ammonium sulfate; 12% (v/v) Glycerol		136525
26	0.18 M Sodium citrate	0.09 M Tris-HCl pH 8.5	27% (v/v) PEG 400; 10% (v/v) Glycerol		136526
27	0.17 M Sodium acetate	0.085 M Tris-HCl pH 8.5	25.5% (w/v) PEG 4000; 15% (v/v) Glycerol		136527
28		0.1 M Imidazole pH 8.0	10% (v/v) Isopropanol		136528
29	0.2 M Zinc acetate	0.1 M Imidazole pH 8.0	2.5 M Sodium chloride		136529
30		0.1 M Imidazole pH 8.0	2.5 M Sodium chloride		136530
31		0.1 M Imidazole pH 8.0	10% (w/v) PEG 8000		136531
32	0.2 M Sodium chloride	0.1 M Imidazole pH 8.0	1.0 M di-Ammonium phosphate		136532
33		0.1 M Tris pH 8.5	1.6 M Ammonium sulfate	8.0	136533
34		0.1 M Tris pH 8.5	5% (w/v) PEG 6000	8.0	136534
35		0.1 M Tris pH 8.5	65% (v/v) MPD	8.0	136535
36	1.0 M Lithium chloride	0.1 M Tris pH 8.5	10% (w/v) PEG 6000	8.0	136536
37		0.1 M Tris pH 8.0	3.2 M Ammonium sulfate		136537
38		0.1 M HEPES pH 7.5	1.26 M Ammonium sulfate		136538
39	0.2 M Sodium chloride	0.1 M HEPES pH 7.5	35% (v/v) MPD		136539
40		0.1 M HEPES pH 7.5	50% (v/v) PEG 200		136540
41		0.1 M HEPES pH 7.5	1.5 M Lithium sulfate		136541
42		0.1 M HEPES pH 7.5	4.3 M Sodium chloride		136542
43	0.2 M Sodium citrate	0.1 M HEPES pH 7.5	30% (v/v) MPD		136543
44		0.1 M HEPES pH 7.5	20% (w/v) PEG 10000; 8% (v/v) Ethylene glycol		136544
45		0.09 M HEPES pH 7.5	1.26 M tri-Sodium citrate; 10% (v/v) Glycerol		136545
46	1.7 M Ammonium sulfate	0.085 M HEPES pH 7.5	1.7% (v/v) PEG 400; 15% (v/v) Glycerol		136546
47	0.05 M Lithium sulfate	0.1 M HEPES pH 7.5	30% (v/v) PEG 600; 10% (v/v) Glycerol		136547
48		0.1 M HEPES pH 7.5	30% (v/v) 1,2-Propanediol; 20% (v/v) PEG 400		136548

The JCSG Core IV Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
49	0.2 M Ammonium sulfate	0.1 M Tris pH 7.0	25% (v/v) 1,2-Propanediol; 10% (v/v) Glycerol		136549
50		0.1 M HEPES pH 7.5	5% (w/v) PEG 3000; 40% (v/v) Ethylene glycol		136550
51	0.2 M Ammonium sulfate	0.1 M Tris pH 7.0	40% (v/v) MPD		136551
52			4.0 M Sodium formate		136552
53			3.6 M Sodium formate; 10% (v/v) Glycerol		136553
54	0.2 M Calcium acetate	0.1 M HEPES pH 7.5	40% (v/v) PEG 400		136554
55	0.2 M Sodium chloride	0.1 M Tris pH 7.0	30% (w/v) PEG 3000		136555
56	0.2 M Lithium sulfate	0.1 M Tris pH 7.0	1.0 M Sodium/Potassium tartrate		136556
57	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	40% (v/v) PEG 600		136557
58		0.1 M HEPES pH 6.5	0.8 M Ammonium sulfate	7.0	136558
59		0.1 M HEPES pH 7.0	3.2 M Ammonium sulfate		136559
60		0.1 M HEPES pH 6.5	30% (w/v) PEG 6000	7.0	136560
61	1.0 M Lithium chloride	0.1 M HEPES pH 7.0			136561
62	1 M Sodium chloride	0.1 M Sodium cacodylate pH 6.5	30% (v/v) PEG 600; 10% (v/v) Glycerol		136562
63	0.2 M Zinc acetate	0.1 M Sodium cacodylate pH 6.5	10% (v/v) Isopropanol		136563
64	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	45% (v/v) Glycerol		136564
65		0.1 M HEPES pH 7.0	30% (v/v) Jeffamine M-600	7.0	136565
66	0.1 M Sodium dihydrogen phosphate; 0.1 M potassium dihydrogen phosphate	0.1 M MES pH 6.5	2.0 M Sodium chloride		136566
67	0.16 M Zinc acetate	0.08 M Sodium cacodylate pH 6.5	14.4% (w/v) PEG 8000; 20% (v/v) Glycerol		136567
68		0.1 M Sodium citrate pH 5.5	30% (v/v) 1,2-Propanediol; 20% (v/v) MPD		136568
69	0.2 M Zinc acetate		20% (w/v) PEG 3350		136569
70		0.1 M Sodium citrate pH 5.5	5% (w/v) PEG 1000; 35% (v/v) Isopropanol		136570
71		0.1 M MES pH 6.0	30% (v/v) PEG 600; 5% (w/v) PEG 1000; 10% (v/v) Glycerol		136571
72		0.1 M Sodium citrate pH 5.5	40% (v/v) MPD		136572
73	0.2 M Zinc acetate	0.1 M Imidazole pH 8.0	35% (v/v) Isopropanol		136573
74		0.1 M MES pH 6.0	1.0 M Sodium/Potassium tartrate		136574
75	0.2 M Lithium sulfate	0.1 M MES pH 6.0	20% (v/v) Butanediol		136575
76	0.2 M Zinc acetate	0.1 M MES pH 6.0	15% (v/v) Ethanol		136576
77		0.1 M MES pH 5.0	1.6 M Ammonium sulfate	6.0	136577
78		0.1 M MES pH 5.0	30% (w/v) PEG 6000	6.0	136578
79	0.2 M Zinc acetate	0.1 M Imidazole pH 8.0	40% (v/v) PEG 300		136579
80	0.2 M Ammonium acetate	0.1 M Sodium citrate pH 5.6	30% (v/v) MPD		136580
81	0.01 M Iron(II)chloride	0.1 M Sodium citrate pH 5.6	10% (v/v) Jeffamine M-600		136581
82	0.7 M Ammonium dihydrogen phosphate	0.07 M Sodium citrate pH 5.6	30% (v/v) Glycerol		136582
83	0.2 M Lithium sulfate	0.1 M Sodium citrate pH 5.5	15% (v/v) Ethanol		136583
84	0.05 M Calcium acetate	0.1 M Sodium acetate pH 4.5	40% (v/v) 1,2-Propanediol		136584
85		0.1 M Sodium acetate pH 4.5	35% (v/v) Isopropanol		136585
86	0.2 M Ammonium acetate	0.1 M Sodium acetate pH 4.6	30% (w/v) PEG 4000		136586
87	0.17 M Ammonium acetate	0.085 M Sodium acetate pH 4.6	25.5% (w/v) PEG 4000; 15% (v/v) Glycerol		136587
88	0.2 M Zinc acetate	0.1 M Sodium acetate pH 4.5	20% (w/v) PEG 1000		136588
89		0.1 M Sodium acetate pH 4.5	1.0 M di-Ammonium phosphate		136589
90		0.1 M Sodium acetate pH 4.5	0.8 M Sodium dihydrogen phosphate; 1.2 M di-Potassium hydrogen phosphate		136590
91	0.2 M Ammonium sulfate	0.1 M Phosphate-citrate pH 4.2	40% (v/v) Ethylene glycol		136591
92			10% (v/v) Ethanol; 1.5 M Sodium chloride		136592
93			1.5 M Ammonium sulfate; 25% (v/v) Glycerol		136593
94		0.1 M Phosphate-citrate pH 4.2	1.6 M Sodium dihydrogen phosphate; 0.4 M di-Potassium hydrogen phosphate		136594
95		0.1 M Citric acid pH 2.5	30% (w/v) PEG 6000	4.0	136595
96	1.0 M Lithium chloride	0.1 M Citric acid	30% (w/v) PEG 6000	4.0	136596

Protein Crystallization Suites and Formats

	EasyXtal Microplate	NeXtal Deep- Well Block	EasyXtal DG Tool X-Seal	NeXtal Tubes
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	■	■	■	
Pre-Screen Assay			■	

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