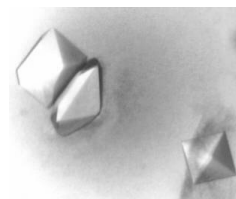


The JCSG Core III Suite

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.

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 III Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1		0.1 M CAPS pH 10.5	30% (v/v) PEG 400		136401
2		0.1 M CHES pH 9.5	40% (v/v) PEG 600		136402
3		0.1 M CHES pH 9.5	50% (v/v) PEG 200		136403
4		0.1 M CHES pH 9.5	30% (w/v) PEG 3000		136404
5	0.2 M Sodium chloride	0.1 M CHES pH 9.5	50% (v/v) PEG 400		136405
6	0.2 M di-Potassium hydrogen phosphate		20% (w/v) PEG 3350		136406
7	0.2 M di-Sodium hydrogen phosphate		20% (w/v) PEG 3350		136407
8		0.1 M Bicine pH 8.5	40% (v/v) MPD	9.0	136408
9		0.1 M Bicine pH 8.5	5% (w/v) PEG 6000	9.0	136409
10	0.2 M Ammonium sulfate	0.1 M CAPS pH 10.5	30% (v/v) PEG 200		136410
11		0.1 M Tris pH 8.5	20% (w/v) PEG 1000		136411
12		0.1 M Tris pH 8.5	1.0 M di-Ammonium hydrogen phosphate		136412
13	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	20% (w/v) PEG 8000		136413
14	0.2 M Lithium sulfate	0.1 M Tris pH 8.5	1.26 M Ammonium sulfate		136414
15	0.01 M Nickel chloride	0.1 M Tris pH 8.5	1.0 M Lithium sulfate		136415
16	1.6 M Ammonium dihydrogen phosphate	0.08 M Tris-HCl pH 8.5	20% (v/v) Glycerol		136416
17	0.2 M Sodium acetate	0.1 M Tris-HCl pH 8.5	30% (w/v) PEG 4000		136417
18	1.0 M Sodium citrate	0.1 M Imidazole pH 8.0			136418
19	0.2 M Magnesium chloride	0.1 M Imidazole pH 8.0	15% (v/v) Ethanol		136419
20	0.2 M Lithium sulfate	0.1 M Imidazole pH 8.0	10% (w/v) PEG 3000		136420
21		0.1 M Tris pH 8.5	40% (v/v) MPD	8.0	136421
22		0.1 M Tris pH 8.5	2.4 M Ammonium sulfate	8.0	136422
23	0.2 M di-Ammonium hydrogen phosphate		20% (w/v) PEG 3350		136423
24	0.2 M Sodium chloride	0.1 M HEPES pH 7.5	30% (v/v) PEG 400		136424
25	0.05 M Calcium acetate	0.1 M Imidazole pH 8.0	35% (v/v) 2-Ethoxyethanol		136425
26	0.2 M tri-Sodium citrate	0.1 M HEPES pH 7.5	10% (v/v) Isopropanol		136426
27	0.1 M Sodium chloride	0.1 M HEPES pH 7.5	1.6 M Ammonium sulfate		136427
28	0.18 M Magnesium chloride	0.09 M Sodium HEPES pH 7.5	10% (v/v) Glycerol; 27% (v/v) Isopropanol		136428
29	1.4 M tri-Sodium citrate	0.1 M Sodium HEPES pH 7.5			136429
30	0.2 M Calcium chloride	0.1 M Sodium HEPES pH 7.5	28% (v/v) PEG 400		136430
31	0.2 M Magnesium chloride	0.1 M Sodium HEPES pH 7.5	30% (v/v) Isopropanol		136431
32		0.1 M Imidazole pH 8.0	40% (v/v) PEG 400		136432
33	10% (v/v) Glycerol	0.1 M HEPES pH 7.5	5% (w/v) PEG 3000; 30% (v/v) PEG 400		136433
34	0.2 M Sodium chloride	0.1 M Tris pH 7.0	1.0 M Sodium citrate		136434
35		0.1 M Tris pH 7.0	15% (v/v) Ethanol		136435
36	0.2 M Sodium chloride	0.1 M Tris pH 7.0	35% (v/v) MPD		136436
37	0.2 M Sodium chloride	0.1 M Imidazole pH 8.0	1.0 M Potassium/Sodium tartrate		136437
38		0.1 M HEPES pH 6.5	40% (v/v) MPD	7.0	136438
39		0.1 M HEPES pH 6.5	20% (v/v) MPD	7.0	136439
40		1.0 M Imidazole pH 7.0			136440
41	0.4 M Potassium/Sodium tartrate				136441
42		0.1 M HEPES pH 6.5	2.4 M Ammonium sulfate	7.0	136442
43	1.0 M Lithium chloride	0.1 M HEPES pH 7.0	20% (w/v) PEG 6000	7.0	136443
44		0.1 M HEPES pH 6.5	5% (w/v) PEG 6000	7.0	136444
45		0.1 M Sodium cacodylate pH 6.5	35% (v/v) 2-Ethoxyethanol		136445
46		0.1 M Tris pH 7.0	50% (v/v) PEG 200		136446
47	0.2 M Sodium chloride	0.1 M Sodium/Potassium phosphate pH 6.2	35% (v/v) 2-Ethoxyethanol		136447
48	1.0 M Sodium citrate	0.1 M Sodium cacodylate pH 6.5			136448

The JCSG Core III Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
49		0.1 M Sodium cacodylate pH 6.5	1.26 M Ammonium sulfate		136449
50	0.01 M Cobalt chloride	0.1 M MES pH 6.5	1.8 M Ammonium sulfate		136450
51		0.1 M MES pH 6.5	1.6 M Ammonium sulfate; 10% (v/v) 1,4-Dioxane		136451
52		0.1 M MES pH 6.5	1.6 M Magnesium sulfate		136452
53	0.16 M Calcium acetate	0.08 M Sodium cacodylate pH 6.5	14.4% (w/v) PEG 8000; 20% (v/v) Glycerol		136453
54	0.18 M Magnesium acetate	0.09 M Sodium cacodylate pH 6.5	27% (v/v) MPD; 10% (v/v) Glycerol		136454
55	0.16 M Magnesium acetate	0.08 M Sodium cacodylate pH 6.5	16% (w/v) PEG 8000; 20% (v/v) Glycerol		136455
56	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	18% (w/v) PEG 8000		136456
57	0.2 M Sodium acetate	0.1 M Sodium cacodylate pH 6.5	30% (w/v) PEG 8000		136457
58		0.1 M Imidazole pH 6.5	1.0 M Sodium acetate		136458
59	0.2 M Magnesium acetate	0.1 M Sodium cacodylate pH 6.5	30% (v/v) MPD		136459
60		0.1 M Sodium cacodylate pH 6.5	1.4 M Sodium acetate		136460
61		0.1 M MES pH 6.0	40% (v/v) PEG 400; 5% (w/v) PEG 3000		136461
62		0.1 M Sodium citrate pH 5.5	35% (v/v) 2-Ethoxyethanol		136462
63		0.1 M Sodium/Potassium phosphate pH 6.2	35% (v/v) MPD		136463
64		0.1 M Sodium/Potassium phosphate pH 6.2	2.5 M Sodium chloride		136464
65	0.2 M Calcium acetate	0.1 M MES pH 6.0	10% (v/v) Isopropanol		136465
66	0.2 M Zinc acetate	0.1 M MES pH 6.0	10% (w/v) PEG 8000		136466
67		0.1 M MES pH 6.0	3.2 M Ammonium sulfate		136467
68		0.1 M MES pH 5.0	2.4 M Ammonium sulfate	6.0	136468
69		0.1 M MES pH 5.0	0.8 M Ammonium sulfate	6.0	136469
70	0.2 M Potassium/Sodium tartrate	0.1 M Sodium citrate pH 5.6	2.0 M Ammonium sulfate		136470
71	0.17 M Ammonium acetate	0.085 M Sodium citrate pH 5.6	25.5% (w/v) PEG 4000; 15% (v/v) Glycerol		136471
72		0.1 M Sodium citrate pH 5.6	1.0 M Ammonium dihydrogen phosphate		136472
73		0.1 M Sodium citrate pH 5.5	2.0 M Ammonium sulfate		136473
74		0.1 M Sodium acetate pH 4.5	40% (v/v) PEG 400		136474
75		0.1 M Tris pH 7.0	40% (v/v) PEG 300; 5% (w/v) PEG 1000		136475
76		0.1 M Phosphate-citrate pH 4.2	40% (v/v) PEG 600		136476
77	0.2 M Calcium chloride		20% (w/v) PEG 3350		136477
78		0.1 M Sodium acetate pH 5.0	40% (v/v) MPD	5.0	136478
79		0.1 M Citric acid pH 5.0	1.0 M Lithium chloride	5.0	136479
80		0.1 M Citric acid pH 4.0	30% (w/v) PEG 6000	5.0	136480
81		0.04 M Potassium dihydrogen phosphate	16% (w/v) PEG 8000; 20% (v/v) Glycerol		136481
82	0.1 M Cadmium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) PEG 400		136482
83	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) MPD		136483
84	2.0 M Sodium chloride	0.1 M Sodium acetate pH 4.6			136484
85	2.0 M Sodium formate	0.1 M Sodium acetate pH 4.6			136485
86	0.2 M Calcium chloride	0.1 M Sodium acetate pH 4.6	20% (v/v) Isopropanol		136486
87	0.2 M Lithium sulfate	0.1 M Sodium acetate pH 4.5	2.5 M Sodium chloride		136487
88		0.1 M Sodium acetate pH 4.5	20% (v/v) Butanediol		136488
89	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.5	1.26 M Ammonium sulfate		136489
90		0.26 M Ammonium dihydrogen phosphate	35% (v/v) Glycerol		136490
91		0.1 M Citric acid pH 2.5	40% (v/v) MPD	4.0	136491
92		0.1 M Citric acid pH 3.5	2.4 M Ammonium sulfate	4.0	136492
93		0.1 M Citric acid pH 3.5	1.6 M Ammonium sulfate	4.0	136493
94	2.0 M Sodium chloride		10% (w/v) PEG 6000		136494
95	0.2 M Ammonium sulfate		30% (w/v) PEG 4000		136495
96	0.2 M Ammonium sulfate		30% (w/v) PEG 8000		136496

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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