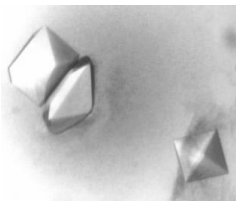
The JCSG Core II Suite



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	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	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	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

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The JCSG Core II Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1	0.2 M Sodium chloride	0.1 M CAPS pH 10.5	20% (w/v) PEG 8000		136301
2	0.2 M Sodium chloride	0.1 M CHES pH 9.5	1.26 M Ammonium sulfate		136302
3	1.0 M Sodium citrate	0.1 M CHES pH 9.5			136303
4	0.2 M Sodium chloride	0.1 M CHES pH 9.5	10% (w/v) PEG 8000		136304
5		0.1 M Bicine pH 9.0	10% (w/v) PEG 20000; 2% (v/v) 1,4-Dioxane		136305
6	0.1 M Sodium chloride	0.1 M Bicine pH 9.0	20% (w/v) PEG 550 MME		136306
7	1.0 M Lithium chloride	0.1 M Bicine pH 9.0	10% (w/v) PEG 6000	9.0	136307
8		0.1 MTris pH 8.5	5% (w/v) PEG 8000; 20% (v/v) PEG 300; 10% (v/v) Glycerol		136308
9	0.01 M Nickel chloride	0.1 M Tris pH 8.5	20% (w/v) PEG 2000 MME		136309
10		0.1 M Tris pH 8.5	20% (v/v) Ethanol		136310
11		0.1 M Tris·HCl pH 8.5	2.0 M Ammonium dihydrogen phosphate		136311
12		0.1 M Tris·HCl pH 8.5	8% (w/v) PEG 8000		136312
13		0.1 M Tris·HCl pH 8.5	2.0 M Ammonium sulfate		136313
14	0.2 M Lithium sulfate	0.1 MTris pH 8.5	40% (v/v) PEG 400		136314
15	0.2 M Calcium acetate	0.1 M Imidazole pH 8.0	10% (w/v) PEG 8000		136315
16	0.2 M Magnesium chloride	0.1 M Imidazole pH 8.0	35% (v/v) MPD		136316
17	1.0 M Lithium chloride	0.1 M Tris pH 8.5	20% (w/v) PEG 6000	8.0	136317
18		0.1 M Tris pH 8.5	20% (w/v) PEG 6000	8.0	136318
19	0.2 M Lithium acetate		20% (w/v) PEG 3350		136319
20	0.2 M Magnesium chloride	0.1 M Imidazole pH 8.0	40% (v/v) MPD		136320
21	0.2 M Magnesium chloride	0.1 M HEPES pH 7.5	15% (v/v) Ethanol		136321
22		0.1 M HEPES pH 7.5	70% (v/v) MPD		136322
23		0.085 M Sodium HEPES pH 7.5	17% (w/v) PEG 4000; 15% (v/v) Glycerol; 8.5% (v/v) Isopropanol		136323
24	0.6 M Sodium dihydrogen phosphate; 0.6 M Potassium dihydrogen phosphate	0.075 M Sodium HEPES pH 7.5	25% (v/v) Glycerol		136324
25	0.18 M Magnesium chloride	0.09 M Sodium HEPES pH 7.5	27% (v/v) PEG 400; 10% (v/v) Glycerol		136325
26		0.1 M Sodium HEPES pH 7.5	2% (v/v) PEG 400; 2.0 M Ammonium sulfate		136326
27	0.2 M Magnesium chloride	0.1 M Sodium HEPES pH 7.5	30% (v/v) PEG 400		136327
28	0.2 M Sodium chloride	0.1 M Na/K phosphate pH 6.2	50% (v/v) PEG 200		136328
29	0.2 M Sodium fluoride		20% (w/v) PEG 3350		136329
30	0.2 M Lithium sulfate	0.1 M Tris pH 7.0	2.0 M Ammonium sulfate		136330
31	0.2 M Calcium acetate	0.1 M Sodium cacodylate pH 6.5	40% (v/v) PEG 300		136331
32		0.1 M Tris pH 7.0	20% (w/v) PEG 1000		136332
33	1.0 M Lithium chloride	0.1 M HEPES pH 7.0	10% (w/v) PEG 6000	7.0	136333
34		0.1 M HEPES pH 6.5	10% (w/v) PEG 6000	7.0	136334
35	0.2 M Sodium chloride	0.1 M Na/K phosphate pH 6.2	40% (v/v) PEG 400		136335
36		0.1 M Sodium citrate pH 5.5	50% (v/v) PEG 200		136336
37		0.1 M Na/K phosphate pH 6.2	25% (v/v) 1,2-Propanediol; 10% (v/v) Glycerol		136337
38	0.2 M Sodium nitrate		20% (w/v) PEG 3350		136338
39	0.05 M Lithium sulfate	0.1 M Tris pH 7.0	50% (v/v) PEG 200		136339
40	0.2 M Potassium sulfate		20% (w/v) PEG 3350		136340
41	0.2 M Magnesium formate				136341
42		0.1 M Sodium citrate pH 5.5	40% (v/v) PEG 600		136342
43	0.2 M Magnesium chloride	0.1 M Sodium cacodylate pH 6.5	20% (w/v) PEG 1000		136343
44	0.2 M Magnesium chloride	0.1 M Sodium cacodylate pH 6.5	10% (w/v) PEG 3000		136344
45	0.2 M Lithium sulfate	0.1 M Sodium cacodylate pH 6.5	30% (v/v) PEG 400		136345
46	0.2 M Sodium chloride	0.1 M Sodium cacodylate pH 6.5	2.0 M Ammonium sulfate		136346
47		0.1 M MES pH 6.5	12% (w/v) PEG 20000		136347
48	0.2 M Lithium sulfate		20% (w/v) PEG 3350		136348

The JCSG Core II Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
49	0.2 M Sodium chloride	0.1 M Na/K phosphate pH 6.2	20% (w/v) PEG 1000		136349
50		0.1 M MES pH 5.0	10% (v/v) MPD	6.0	136350
51	1.0 M Lithium chloride	0.1 M MES pH 6.0	20% (w/v) PEG 6000	6.0	136351
52	1.0 M Lithium chloride	0.1 M MES pH 6.0	10% (w/v) PEG 6000	6.0	136352
53		0.1 M MES pH 5.0	5% (w/v) PEG 6000	6.0	136353
54	0.2 M Zinc acetate	0.1 M Imidazole pH 8.0	25% (v/v) 1,2-Propanediol; 10% (v/v) Glycerol		136354
55	0.2 M Zinc acetate	0.1 M Imidazole pH 8.0	40% (v/v) PEG 600		136355
56	0.5 M Ammonium sulfate	0.1 M Tris pH 7.0	30% (v/v) PEG 600; 10% (v/v) Glycerol		136356
57	1.0 M Lithium sulfate	0.1 M Sodium citrate pH 5.6	0.5 M Ammonium sulfate		136357
58	0.2 M Ammonium acetate	0.1 M Sodium citrate pH 5.6	30% (w/v) PEG 4000		136358
59			24% (w/v) PEG 1500; 20% (v/v) Glycerol		136359
60	0.2 M Sodium chloride	0.1 M Sodium acetate pH 4.5	40% (v/v) PEG 300		136360
61		0.1 M Sodium acetate pH 4.5	35% (v/v) MPD; 10% (v/v) Glycerol		136361
62		0.1 M Phosphate-citrate pH 4.2	40% (v/v) PEG 300		136362
63		0.1 M Sodium acetate pH 4.5	5% (w/v) PEG 1000; 50% (v/v) Ethylene glycol		136363
64	0.1 M Sodium chloride	0.1 M Sodium acetate pH 4.5	30% (v/v) PEG 200		136364
65		0.1 M Sodium acetate pH 4.5	40% (v/v) 1,2-Propanediol		136365
66		0.1 M Sodium acetate pH 4.5	40% (v/v) Ethylene glycol		136366
67		0.1 M Sodium acetate pH 5.0	10% (v/v) MPD	5.0	136367
68		0.1 M Citric acid pH 4.0	2.4 M Ammonium sulfate	5.0	136368
69		0.1 M Citric acid pH 4.0	1.6 M Ammonium sulfate	5.0	136369
70		0.1 M Citric acid pH 4.0	0.8 M Ammonium sulfate	5.0	136370
71	1.0 M Lithium chloride	0.1 M Citric acid pH 5.0	20% (w/v) PEG 6000	5.0	136371
72		0.1 M Phosphate-citrate pH 4.2	5% (w/v) PEG 3000; 25% (v/v) 1,2-Propanediol; 10% (v/v) Glycerol		136372
73			2.0 M Ammonium sulfate; 5% (v/v) Isopropanol		136373
74			2.0 M Ammonium sulfate		136374
75	0.2 M Magnesium chloride	0.1 M MES pH 5.5	40% (v/v) PEG 400		136375
76	0.01 M Cobalt chloride	0.1 M Sodium acetate pH 4.6	1.0 M Hexanediol		136376
77		0.08 M Sodium acetate pH 4.6	1.6 M Ammonium sulfate; 20% (v/v) Glycerol		136377
78		0.07 M Sodium acetate pH 4.6	5.6% (w/v) PEG 4000; 30% (v/v) Glycerol		136378
79	0.14 M Calcium chloride	0.07 M Sodium acetate pH 4.6	30% (v/v) Glycerol; 14% (v/v) Isopropanol		136379
80	0.16 M Ammonium sulfate	0.08 M Sodium acetate pH 4.6	20% (w/v) PEG 4000; 20% (v/v) Glycerol		136380
81	0.018 M Calcium chloride	0.09 M Sodium acetate pH 4.6	27% (v/v) MPD; 10% (v/v) Glycerol		136381
82		0.1 M Sodium acetate pH 4.6	2.0 M Ammonium sulfate		136382
83	0.2 M Zinc acetate	0.1 M Sodium acetate pH 4.5	10% (w/v) PEG 3000		136383
84	0.2 M Ammonium sulfate	0.1 M Phosphate-citrate pH 4.2	20% (v/v) PEG 300; 10% Glycerol		136384
85	0.2 M Calcium acetate	0.1 M Sodium acetate pH 4.5	30% (v/v) PEG 400		136385
86	0.2 M Lithium sulfate	0.1 M Sodium acetate pH 4.5	30% (w/v) PEG 8000		136386
87			25% (v/v) Ethylene glycol		136387
88	0.2 M Lithium sulfate	0.1 M Phosphate-citrate pH 4.2	10% (v/v) Isopropanol		136388
89	0.2 M Sodium chloride	0.1 M Phosphate-citrate pH 4.2	20% (w/v) PEG 8000		136389
90			10% (w/v) PEG 1000; 10% (w/v) PEG 8000		136390
91	0.17 M Ammonium sulfate		25.5% (w/v) PEG 4000; 15% (v/v) Glycerol		136391
92			30% (w/v) PEG 1500		136392
93	0.4 M Ammonium dihydrogen phosphate				136393
94			35% (v/v) 1,4-Dioxane		136394
95		0.1 M Citric acid pH 2.5	10% (v/v) MPD	4.0	136395
96		0.1 M Citric acid pH 2.5	20% (w/v) PEG 6000	4.0	136396

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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