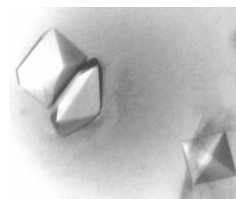


# The JCSG Core I Suite

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 I Suite Composition Table

Number	Salt	Buffer	Precipitant	Final pH	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1		0.1 M CHES pH 9.5	20% (w/v) PEG 8000		136201
2		0.1 M Bicine pH 8.5	20% (w/v) PEG 6000	9.0	136202
3	0.05 M Lithium sulfate; 0.05 M Sodium sulfate	0.05 M Tris-HCl pH 8.5	30% (w/v) PEG 400		136203
4	0.2 M Ammonium dihydrogen phosphate	0.1 M Tris pH 8.5	50% (v/v) MPD		136204
5	0.2 M Magnesium chloride	0.1 M Tris pH 8.5	3.4 M 1,6 Hexanediol		136205
6	0.05 M Magnesium chloride	0.1 M Tris pH 8.5	40% (v/v) Ethanol		136206
7		0.2 M tri-Potassium citrate	20% (w/v) PEG 3350		136207
8		0.2 M tri-Sodium citrate	20% (w/v) PEG 3350		136208
9		0.2 M tri-Lithium citrate	20% (w/v) PEG 3350		136209
10	0.2 M Calcium acetate	0.1 M Imidazole pH 8.0	20% (w/v) PEG 1000		136210
11		0.2 M Potassium acetate	20% (w/v) PEG 3350		136211
12		0.2 M Magnesium acetate	20% (w/v) PEG 3350		136212
13	0.2 M Sodium chloride	0.1 M HEPES pH 7.5	20% (w/v) PEG 3000		136213
14		0.1 M HEPES pH 7.5	20% (w/v) PEG 8000		136214
15		0.1 M HEPES pH 7.5	10% (w/v) PEG 8000		136215
16	0.19 M Calcium chloride	0.095 M HEPES pH 7.5	26.6% (v/v) PEG 400; 5% (v/v) Glycerol		136216
17		0.1 M HEPES pH 7.5	20% (w/v) PEG 4000; 10% (v/v) Isopropanol		136217
18	0.8 M di-Sodium hydrogen phosphate; 0.8 M di-Potassium hydrogen phosphate	0.1 M HEPES pH 7.5			136218
19	0.2 M di-Sodium tartrate		20% (w/v) PEG 3350		136219
20	0.2 M Calcium acetate hydrate		20% (w/v) PEG 3350		136220
21	0.2 M Potassium formate		20% (w/v) PEG 3350		136221
22	0.2 M Potassium Sodium tartrate		20% (w/v) PEG 3350		136222
23	0.2 M Sodium formate		20% (w/v) PEG 3350		136223
24	0.2 M Potassium fluoride		20% (w/v) PEG 3350		136224
25	0.2 M Ammonium acetate		20% (w/v) PEG 3350		136225
26	0.2 M Lithium nitrate		20% (w/v) PEG 3350		136226
27		0.1 M Sodium cacodylate pH 6.5	5% (w/v) PEG 8000, 40% (v/v) MPD		136227
28	0.2 M Magnesium chloride	0.1 M Tris pH 7.0	10% (w/v) PEG 8000		136228
29	0.2 M Calcium acetate	0.1 M Tris pH 7.0	20% (w/v) PEG 3000		136229
30	0.2 M Magnesium chloride	0.1 M Tris pH 7.0	2.5 M Sodium chloride		136230
31		0.1 M Tris pH 7.0	20% (w/v) PEG 2000 MME		136231
32	0.2 M Sodium acetate		20% (w/v) PEG 3350		136232
33	0.2 M Potassium thiocyanate		20% (w/v) PEG 3350		136233
34		0.1 M HEPES pH 6.5	20% (w/v) PEG 6000	7.0	136234
35	0.2 M Potassium nitrate		20% (w/v) PEG 3350		136235
36	0.2 M Sodium thiocyanate		20% (w/v) PEG 3350		136236
37	0.2 M Sodium iodide		20% (w/v) PEG 3350		136237
38	0.2 M Potassium chloride		20% (w/v) PEG 3350		136238
39	0.2 M Sodium chloride		20% (w/v) PEG 3350		136239
40	0.2 M Potassium iodide		20% (w/v) PEG 3350		136240
41	0.2 M Lithium chloride		20% (w/v) PEG 3350		136241
42	0.2 M Magnesium chloride	0.1 M Sodium cacodylate pH 6.5	50% (v/v) PEG 200		136242
43	0.2 M di-Ammonium tartrate		20% (w/v) PEG 3350		136243
44	0.2 M Sodium sulfate		20% (w/v) PEG 3350		136244
45	0.2 M Ammonium formate		20% (w/v) PEG 3350		136245
46		0.1 M HEPES pH 7.5	10% (w/v) PEG 6000; 5% (v/v) MPD		136246
47		1.6 M Sodium citrate pH 6.5			136247
48	0.2 M Magnesium acetate	0.1 M Sodium cacodylate pH 6.5	20% (w/v) PEG 8000		136248

## The JCSG Core I 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 nitrate		20% (w/v) PEG 3350		136249
50	0.2 M Ammonium chloride		20% (w/v) PEG 3350		136250
51	0.2 M Sodium chloride	0.1 M Na/K phosphate pH 6.2	10% (w/v) PEG 8000		136251
52	0.2 M Ammonium iodide		20% (w/v) PEG 3350		136252
53	0.2 M Ammonium fluoride		20% (w/v) PEG 3350		136253
54		0.1 M MES pH 6.0	5% (w/v) PEG 3000, 30% (v/v) PEG 200		136254
55	0.2 M Calcium acetate	0.1 M MES pH 6.0	20% (w/v) PEG 8000		136255
56	0.2 M Lithium sulfate	0.1 M MES pH 6.0	35% (v/v) MPD		136256
57	0.2 M Ammonium sulfate		20% (w/v) PEG 3350		136257
58		0.1 M MES pH 5.0	40% (v/v) MPD	6.0	136258
59		0.1 M MES pH 5.0	20% (v/v) MPD	6.0	136259
60		0.1 M MES pH 5.0	20% (w/v) PEG 6000	6.0	136260
61		0.1 M MES pH 5.0	10% (w/v) PEG 6000	6.0	136261
62	0.2 M Magnesium sulfate		20% (w/v) PEG 3350		136262
63	0.2 M Magnesium formate		20% (w/v) PEG 3350		136263
64	0.2 M Magnesium nitrate		20% (w/v) PEG 3350		136264
65	0.2 M Magnesium chloride		20% (w/v) PEG 3350		136265
66		0.095 M Sodium citrate pH 5.6	19% (v/v) Isopropanol; 19% (w/v) PEG 4000; 5% (v/v) Glycerol		136266
67		0.1 M Sodium citrate pH 5.6	20% (v/v) Isopropanol; 20% (w/v) PEG 4000		136267
68		0.1 M Sodium citrate pH 5.5	20% (w/v) PEG 3000		136268
69	0.2 M Sodium chloride	0.1 M Phosphate-citrate pH 4.2	50% (v/v) PEG 200		136269
70		0.1 M Phosphate-citrate pH 4.2	5% (w/v) PEG 1000, 40% Ethanol		136270
71	0.2 M Lithium sulfate	0.1 M Sodium acetate pH 4.5	50% (v/v) PEG 400		136271
72		0.1 M Phosphate-citrate pH 4.2	40% (v/v) MPD		136272
73		0.18 M tri-Ammonium citrate	20% (w/v) PEG 3350		136273
74		0.1 M Sodium acetate pH 5.0	20% (v/v) MPD		136274
75	1.0 M Lithium chloride	0.1 M Citric acid pH 5.0	10% (w/v) PEG 6000	5.0	136275
76		0.1 M Citric acid pH 4.0	20% (w/v) PEG 6000	5.0	136276
77		0.1 M Citric acid	10% (w/v) PEG 6000	5.0	136277
78		0.1 M Citric acid pH 4.0	5% (w/v) PEG 6000	5.0	136278
79	0.2 M Potassium dihydrogen phosphate		20% (w/v) PEG 3350		136279
80	0.2 M Ammonium dihydrogen phosphate		20% (w/v) PEG 3350		136280
81	0.2 M Ammonium sulfate	0.1 M Sodium acetate pH 4.6	30% (w/v) PEG 2000 MME		136281
82		0.1 M Sodium acetate pH 4.6	8% (w/v) PEG 4000		136282
83	0.2 M Ammonium sulfate	0.1 M Sodium acetate pH 4.6	25% (w/v) PEG 4000		136283
84	0.02 M Calcium chloride	0.1 M Sodium acetate pH 4.6	30% (v/v) MPD		136284
85		0.1 M Sodium acetate pH 4.5	35% (v/v) MPD		136285
86		0.1 M Sodium acetate pH 4.5	20% (w/v) PEG 3000		136286
87	0.2 M Sodium dihydrogen phosphate		20% (w/v) PEG 3350		136287
88	0.05 M Potassium dihydrogen phosphate		20% (w/v) PEG 8000		136288
89	0.2 M Sodium chloride	0.1 M Phosphate-citrate pH 4.2	10% (w/v) PEG 3000		136289
90		0.1 M Phosphate/citrate pH 4.2	2.0 M Ammonium sulfate		136290
91	0.2 M Lithium sulfate	0.1 M Phosphate-citrate pH 4.2	20% (w/v) PEG 1000		136291
92		0.1 M Citric acid pH 2.5	20% (v/v) MPD	4.0	136292
93		0.1 M Citric acid pH 3.5	0.8 M Ammonium sulfate	4.0	136293
94	1.0 M Lithium chloride	0.1 M Citric acid pH 4.0	20% (w/v) PEG 6000	4.0	136294
95	1.0 M Lithium chloride	0.1 M Citric acid pH 4.0	10% (w/v) PEG 6000	4.0	136295
96		0.1 M Citric acid pH 4.0	5% (w/v) PEG 6000	4.0	136296

## 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 <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 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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