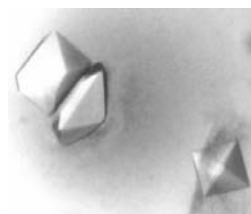


# The JCSG Core Suite II

For initial screening using an optimized set of conditions



## 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) 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



## JCSG Core Suite II Refill-Hit Solutions (4 x 12.5 ml tubes)

Number	Salt	Buffer	Precipitant	Cat. no.
1	0.1 M Sodium chloride	0.1 M CAPS pH 10.5	20% 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% PEG 8000	136304
5		0.1 M Bicine pH 9.0	10% PEG 20000, 2% Dioxane	136305
6	0.1 M Sodium chloride	0.1 M Bicine pH 9.0	20% PEG 550	136306
7	1.0 M Lithium chloride	0.1 M Bicine pH 9.0	10% PEG 6000	136307
8		0.1M Tris pH 8.5	5% (w/v) PEG 8000, 20% PEG 300, 10% glycerol	136308
9	0.01 M Nickel chloride	0.1 M Tris pH 8.5	20% PEG 2000	136309
10		0.1 M Tris pH 8.5	20% Ethanol	136310
11		0.1 M Tris pH 8.5	2.0 M Ammonium dihydrogen phosphate	136311
12		0.1 M Tris pH 8.5	8% PEG 8000	136312
13		0.1 M Tris pH 8.5	2.0 M Ammonium sulfate	136313
14	0.2 M Lithium sulfate	0.1M Tris pH 8.5	40% PEG 400	136314
15	0.2 M Calcium acetate	0.1 M Imidazole pH 8.0	10% PEG 8000	136315
16	0.2 M Magnesium chloride	0.1 M Imidazole pH 8.0	35% (±)-2-Methyl-2,4-Pentanediol	136316
17	1.0 M Lithium chloride	0.1 M Tris pH 8.0	20% PEG 6000	136317
18		0.1 M Tris pH 8.0	20% PEG 6000	136318
19		0.2 M Lithium Acetate dihydrate	20% (w/v) PEG 3350	136319
20	0.2 M Magnesium chloride	0.1M Imidazole pH 8.0	40% (±)-2-Methyl-2,4-Pentanediol	136320
21	0.2 M Magnesium chloride	0.1 M HEPES pH 7.5	15% Ethanol	136321
22		0.1 M HEPES pH 7.5	70% (±)-2-Methyl-2,4-Pentanediol	136322
23		0.085 M HEPES pH 7.5	17% PEG 4000, 15% Glycerol, 8.5% Isopropanol	136323
24	0.6 M di-sodium hydrogen phosphate/0.6 M Potassium dihydrogen phosphate	0.075 M HEPES pH 7.5	25% Glycerol	136324
25	0.2 M Magnesium chloride	0.1 M HEPES pH 7.5	30% PEG 400	136325
26		0.1 M HEPES pH 7.5	2% PEG 400, 2.0 M Ammonium sulfate	136326
27	0.2 M Magnesium chloride	0.1 M HEPES pH 7.5	30% PEG 400	136327
28	0.2 M Sodium chloride	0.1M 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	0.1M Cacodylate pH 6.5	0.2 M Calcium acetate	40% PEG 300	136331
32		0.1 M Tris pH 7.0	20% PEG 1000	136332
33	1.0 M Lithium chloride	0.1 M HEPES pH 7.0	10% PEG 6000	136333
34		0.1 M HEPES pH 7.0	10% PEG 6000	136334
35	0.2 M Sodium chloride	0.1M Na/K phosphate pH 6.2	40% PEG 400	136335
36		0.1M Citrate pH 5.5	50% PEG 200	136336
37		0.1M 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	0.1M Tris pH 7.0	50% PEG 200	136339
40	0.2 M Potassium Sulfate		20% (w/v) PEG 3350	136340
41		0.2 M MG formate		136341
42	0.1 M Sodium chloride	0.1M Citrate pH 5.5	40% (v/v) PEG 600	136342
43	0.2 M Sodium chloride	0.1 M cacodylate pH 6.5	20% PEG 1000	136343
44	1.0 M Sodium citrate	0.1 M Cacodylate pH 6.5	10% PEG 3000	136344
45	0.2 M Sodium chloride	0.1 M Cacodylate pH 6.5	30% PEG 400	136345
46		0.1 M cacodylate pH 6.5	2.0 M Ammonium sulfate	136346
47	0.1 M Sodium chloride	0.1 M MES pH 6.5	12% PEG 20000	136347
48	1.0 M Lithium chloride		20% (w/v) PEG 3350	136348

## JCSG Core Suite II Refill-Hit Solutions (4 x 12.5 ml tubes)

Number	Salt	Buffer	Precipitant	Cat. no.
49	0.2 M Sodium chloride	0.1 M Na/K phosphate pH 6.2,	20% PEG 1000	136349
50		0.1 M MES pH 6.0,	10% (±)-2-Methyl-2,4-Pentanediol	136350
51	1.0 M Lithium chloride	0.1 M MES pH 6.0,	20% PEG 6000	136351
52	1.0 M Lithium chloride	0.1 M MES pH 6.0,	10% PEG 6000	136352
53		0.1 M MES pH 6.0,	5% PEG 6000	136353
54	0.2 M Zinc acetate	0.1M Imidazole pH 8.0,	25% 1,2-propanediol, 10% glycerol	136354
55	0.2 M Zinc acetate	0.1M Imidazole pH 8.0,	40% PEG-600	136355
56	0.5 M Ammonium sulfate	0.1M Tris pH 7.0,	30% (v/v) PEG-600, 10% (v/v) glycerol	136356
57	1.0 M Lithium sulfate	0.1 M citrate pH 5.6,	0.5 M Ammonium sulfate	136357
58		0.1 M Sodium citrate pH 5.6,	30% PEG-4000, 0.2 M Ammonium acetate	136358
59			24% PEG 1500, 20% Glycerol,	136359
60	0.2 M Sodium chloride	0.1M Acetate pH 4.5,	40% (v/v) PEG-300	136360
61	0	0.1M Acetate pH 4.5,	35% (v/v) (±)-2-Methyl-2,4-Pentanediol, 10% (v/v) glycerol	136361
62	0	0.1M Phosphate-citrate pH 4.2,	40% (v/v) PEG-300	136362
63	0	0.1M Acetate pH 4.5,	5% (w/v) PEG-1000,50% ethylene glycol	136363
64	0.1 M Sodium chloride	0.1M Acetate pH 4.5,	30% (v/v) PEG-200	136364
65		0.1M Acetate pH 4.5,	40% (v/v) 1,2-propanediol	136365
66		0.1M Acetate pH 4.5,	40% ethylene glycol	136366
67		0.1 M Sodium Acetate trihydrate pH 5.0,	10% (±)-2-Methyl-2,4-Pentanediol	136367
68		0.1 M Citric Acid pH 5.0,	2.4 M Ammonium Sulfate	136368
69		0.1 M Citric Acid pH 5.0,	1.6 M Ammonium Sulfate	136369
70		0.1 M Citric Acid pH 5.0,	0.8 M Ammonium Sulfate	136370
71	1.0 M Lithium chloride	0.1 M Citric Acid pH 5.0,	20% PEG 6000	136371
72		0.1M Phosphate-citrate pH 4.2,	5% (w/v) PEG-3000,25% 1,2-propanediol, 10% glycerol	136372
73			2.0 M (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> , 5% isopropanol	136373
74			2.0 M Ammonium sulfate	136374
75	0.2 M Magnesium chloride	0.1M Citrate pH 5.5,	40% 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 Acetate pH 4.6,	1.6 M Ammonium sulfate, 20% Glycerol	136377
78		0.07 M Sodium acetate pH 4.6,	5.6% PEG 4000, 30% Glycerol	136378
79	0.14 M Calcium chloride	0.07 M Acetate pH 4.6,	30% Glycerol, 14% isopropanol	136379
80	0.16 M Ammonium sulfate	0.08 M Acetate pH 4.6,	20% PEG 4000, 20% Glycerol	136380
81	0.02 M Calcium chloride	0.1 M Sodium acetate pH 4.6,	30% (±)-2-Methyl-2,4-Pentanediol	136381
82		0.1 M Acetate pH 4.6,	2.0 M Ammonium sulfate	136382
83	0.2 M Zinc acetate	0.1 M acetate pH 4.5,	10% PEG 3000	136383
84	0.2 M Ammonium sulfate 4.5	0.1M Phosphate-citrate pH 4.2,	20% PEG-300, 10% glycerol	136384
85	0.1 M acetate pH 4.5	0.2 M Calcium acetate,	30% PEG-400	136385
86	0.2 M Lithium sulfate	0.1 M acetate pH 4.5,	30% PEG 8000	136386
87			25% Ethylene glycol	136387
88	0.2 M Lithium sulfate	0.1 M phosphate-citrate pH 4.2,	10% isopropanol	136388
89	0.2 M Sodium chloride	0.1 M phosphate-citrate pH 4.2,	20% PEG-8000	136389
90			10% PEG-1000, 10% PEG-8000	136390
91	0.17 M Ammonium sulfate		25.5% PEG 4000,, 15% Glycerol	136391
92			30% PEG 1500	136392
93			0.4 M Ammonium dihydrogen phosphate	136393
94			35% Dioxane	136394
95		0.1 M Citric Acid pH 4.0,	10% (±)-2-Methyl-2,4-Pentanediol	136395
96		0.1 M Citric Acid pH 4.0,	20% PEG 6000	136396

## Protein Crystallization Suites and Formats

	EasyXtal Tool X- Seal	EasyXtal DG Tool X-Seal	EasyXtal Microplate	NeXtal Tubes	NeXtal Deep-Well Block
AmSO <sub>4</sub> Suite	■	■	■	■	■
Anions Suite	■	■	■	■	■
Classics Suite	■	■	■	■	■
Classics II Suite	■	■	■	■	■
Classics Lite Suite	■	■	■	■	■
CompAS Suite	■	■	■	■	■
Cryos Suite	■	■	■	■	■
JCSG Core Suites					■
JCSG+ Suite	■	■	■	■	■
MbClass Suite		■	■	■	■
MbClass II Suite		■	■	■	■
MPD Suite		■	■	■	■
Nucleix Suite	■	■	■	■	■
Opti Salts Suite	■	■	■		
PACT Suite	■	■	■	■	■
PEGs II Suite	■	■	■	■	■
PEGs Suite	■	■	■	■	■
pHClear II Suite	■	■	■	■	■
pHClear Suite	■	■	■	■	■
Protein Complex Suite	■	■	■	■	■
Pre-Screen Assay		■			

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