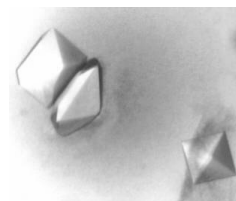


The AmSO₄ Suite

For screening of protein crystallization conditions



The AmSO₄ Suite provides:

- A ready-to-use kit format to which only protein needs to be added, for easy and fast screening
- 96 precisely defined chemical solutions containing ammonium sulfate as precipitant
- A precipitant that dehydrates the protein by competing with water molecules at its surface and thereby promoting the formation of macromolecular crystals
- A first set of solutions (conditions 1–48) containing AmSO₄ in combination with 48 different salts known to be effective as co-crystallizers. This set allows the identification of suitable combinations of AmSO₄ and salts to promote nucleation and crystal growth.
- A second set of solutions (conditions 49–72) containing different concentrations of AmSO₄ in combination with various pH conditions in a 4 x 6 grid format to precisely define the effect of these factors.
- A third set (conditions 73–96) with the most popular solutions from the BMCD enabling screening for different combinations of co-precipitant, salts and buffers, that proved to be successful for other proteins.
- An intermediate step between results received from an AmSO₄ containing suite (e.g., The Classics Suite) and before a narrower refinement.

The AmSO₄ Suite is available in a wide range of formats to suit all scales and throughputs.

EasyXtal Refill-Hit Solutions can be used to develop grids around the original hit conditions. An overview of the composition of the 96 solutions together with an order number for the corresponding Refill-Hit Solution can be found on pages 2 and 3. The location of each Refill-Hit Solution number is given in the diagram below.

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 AmSO₄ Suite Composition Table

Number	Salt	Buffer	Precipitant	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1			2.2 M Ammonium sulfate	134401
2	0.2 M Ammonium acetate		2.2 M Ammonium sulfate	134402
3	0.2 M Ammonium chloride		2.2 M Ammonium sulfate	134403
4	0.2 M Ammonium phosphate		2.2 M Ammonium sulfate	134404
5	0.2 M Ammonium fluoride		2.2 M Ammonium sulfate	134405
6	0.2 M Ammonium formate		2.2 M Ammonium sulfate	134406
7	0.18 M tri-Ammonium citrate		2.2 M Ammonium sulfate	134407
8	0.2 M di-Ammonium phosphate		2.2 M Ammonium sulfate	134408
9	0.2 M Ammonium iodide		2.2 M Ammonium sulfate	134409
10	0.2 M Ammonium nitrate		2.2 M Ammonium sulfate	134410
11	0.2 M di-Ammonium tartrate		2.2 M Ammonium sulfate	134411
12	0.2 M Cadmium chloride		2.2 M Ammonium sulfate	134412
13	0.2 M Cadmium sulfate		2.2 M Ammonium sulfate	134413
14	0.2 M Cesium chloride		2.2 M Ammonium sulfate	134414
15	0.2 M Cesium sulfate		2.2 M Ammonium sulfate	134415
16	0.2 M Ammonium bromide		2.2 M Ammonium sulfate	134416
17	0.2 M Lithium acetate		2.2 M Ammonium sulfate	134417
18	0.2 M Lithium chloride		2.2 M Ammonium sulfate	134418
19	0.2 M tri-Lithium citrate		2.2 M Ammonium sulfate	134419
20	0.2 M Lithium nitrate		2.2 M Ammonium sulfate	134420
21	0.2 M Lithium sulfate		2.2 M Ammonium sulfate	134421
22	0.2 M Potassium acetate		2.2 M Ammonium sulfate	134422
23	0.2 M Potassium bromide		2.2 M Ammonium sulfate	134423
24	0.2 M Potassium chloride		2.2 M Ammonium sulfate	134424
25	0.2 M tri-Potassium citrate		2.2 M Ammonium sulfate	134425
26	0.2 M Potassium phosphate		2.2 M Ammonium sulfate	134426
27	0.2 M Potassium fluoride		2.2 M Ammonium sulfate	134427
28	0.2 M Potassium formate		2.2 M Ammonium sulfate	134428
29	0.2 M di-Potassium phosphate		2.2 M Ammonium sulfate	134429
30	0.2 M Potassium iodide		2.2 M Ammonium sulfate	134430
31	0.2 M Potassium nitrate		2.2 M Ammonium sulfate	134431
32	0.2 M K/Na tartrate		2.2 M Ammonium sulfate	134432
33	0.2 M Potassium sulfate		2.2 M Ammonium sulfate	134433
34	0.2 M Potassium thiocyanate		2.2 M Ammonium sulfate	134434
35	0.2 M Sodium acetate		2.2 M Ammonium sulfate	134435
36	0.2 M Sodium bromide		2.2 M Ammonium sulfate	134436
37	0.2 M Sodium chloride		2.2 M Ammonium sulfate	134437
38	0.2 M tri-Sodium citrate		2.2 M Ammonium sulfate	134438
39	0.2 M Sodium phosphate		2.2 M Ammonium sulfate	134439
40	0.2 M Sodium fluoride		2.2 M Ammonium sulfate	134440
41	0.2 M Sodium formate		2.2 M Ammonium sulfate	134441
42	0.2 M di-Sodium phosphate		2.2 M Ammonium sulfate	134442
43	0.2 M Sodium iodide		2.2 M Ammonium sulfate	134443
44	0.2 M Sodium malonate		2.2 M Ammonium sulfate	134444
45	0.2 M Sodium nitrate		2.2 M Ammonium sulfate	134445
46	0.2 M Sodium sulfate		2.2 M Ammonium sulfate	134446
47	0.2 M di-Sodium tartrate		2.2 M Ammonium sulfate	134447
48	0.2 M Sodium thiocyanate		2.2 M Ammonium sulfate	134448

The AmSO₄ Suite Composition Table

Number	Salt	Buffer	Precipitant	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
49		0.1 M Citric acid pH 4.0	0.8 M Ammonium sulfate	134449
50		0.1 M Citric acid pH 5.0	0.8 M Ammonium sulfate	134450
51		0.1 M MES pH 6.0	0.8 M Ammonium sulfate	134451
52		0.1 M HEPES pH 7.0	0.8 M Ammonium sulfate	134452
53		0.1 M Tris pH 8.0	0.8 M Ammonium sulfate	134453
54		0.1 M Bicine pH 9.0	0.8 M Ammonium sulfate	134454
55		0.1 M Citric acid pH 4.0	1.6 M Ammonium sulfate	134455
56		0.1 M Citric acid pH 5.0	1.6 M Ammonium sulfate	134456
57		0.1 M MES pH 6.0	1.6 M Ammonium sulfate	134457
58		0.1 M HEPES pH 7.0	1.6 M Ammonium sulfate	134458
59		0.1 M Tris pH 8.0	1.6 M Ammonium sulfate	134459
60		0.1 M Bicine pH 9.0	1.6 M Ammonium sulfate	134460
61		0.1 M Citric acid pH 4.0	2.4 M Ammonium sulfate	134461
62		0.1 M Citric acid pH 5.0	2.4 M Ammonium sulfate	134462
63		0.1 M MES pH 6.0	2.4 M Ammonium sulfate	134463
64		0.1 M HEPES pH 7.0	2.4 M Ammonium sulfate	134464
65		0.1 M Tris pH 8.0	2.4 M Ammonium sulfate	134465
66		0.1 M Bicine pH 9.0	2.4 M Ammonium sulfate	134466
67		0.1 M Citric acid pH 4.0	3.2 M Ammonium sulfate	134467
68		0.1 M Citric acid pH 5.0	3.2 M Ammonium sulfate	134468
69		0.1 M MES pH 6.0	3.2 M Ammonium sulfate	134469
70		0.1 M HEPES pH 7.0	3.2 M Ammonium sulfate	134470
71		0.1 M Tris pH 8.0	3.2 M Ammonium sulfate	134471
72		0.1 M Bicine pH 9.0	3.2 M Ammonium sulfate	134472
73	0.1 M tri-Sodium citrate		0.5 M Ammonium sulfate; 1.0 M Lithium Sulfate	134473
74			1.0 M Ammonium sulfate	134474
75		0.1 M Sodium acetate pH 4.6	1.0 M Ammonium sulfate	134475
76		0.1 M HEPES sodium salt pH 7.5	1.0 M Ammonium sulfate; 2% (w/v) PEG 400	134476
77		0.1 M Tris-HCl pH 8.5	1.0 M Ammonium sulfate	134477
78	0.05 M tri-Sodium citrate		1.2 M Ammonium sulfate; 3% (w/v) Isopropanol	134478
79		0.1 M Tris-HCl pH 8.5	1.5 M Ammonium sulfate; 15% (w/v) Glycerol	134479
80	0.5 M Lithium chloride		1.6 M Ammonium sulfate	134480
81	1.0 M Lithium sulfate		1.6 M Ammonium sulfate	134481
82	0.2 M Sodium chloride	0.1 M HEPES sodium salt pH 7.5	1.6 M Ammonium sulfate	134482
83		0.1 M HEPES sodium salt pH 7.5	1.6 M Ammonium sulfate; 2% (w/v) PEG 1000	134483
84		0.1 M MES sodium salt pH 6.5	1.8 M Ammonium sulfate	134484
85	2.0 M Sodium chloride		2.0 M Ammonium sulfate	134485
86		0.1 M Sodium acetate pH 4.6	2.0 M Ammonium sulfate	134486
87		0.1 M MES sodium salt pH 6.5	2.0 M Ammonium sulfate; 5% (w/v) PEG 400	134487
88		0.1 M Tris-HCl pH 8.5	2.0 M Ammonium sulfate	134488
89			2.2 M Ammonium sulfate	134489
90			2.2 M Ammonium sulfate; 20% (w/v) Glycerol	134490
91	0.1 M tri-Sodium citrate		2.4 M Ammonium sulfate	134491
92			3.0 M Ammonium sulfate; 1% (w/v) MPD	134492
93			3.0 M Ammonium sulfate; 10% (w/v) Glycerol	134493
94		0.1 M HEPES sodium salt pH 7.5	3.5 M Ammonium sulfate	134494
95		0.1 M MES sodium salt pH 6.5	3.5 M Ammonium sulfate; 1% (w/v) MPD	134495
96			3.5 M Ammonium sulfate	134496

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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