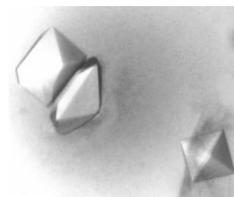


# The PACT Suite

## For screening of protein crystallization conditions



### The PACT 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 with different combinations of polyethylene glycol and ions to test the effect of anions and cations and pH on crystallization
- A composition of solutions based on the work of Newman et al (1)

The PACT 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.

1. Newman, J. et al., (2005) Acta. Cryst. **D61**, 1426.

### 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 PACT Suite Composition Table

Number	Salt	Buffer	Precipitant	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
1		0.1 M SPG buffer pH 4	25% (w/v) PEG 1500	135701
2		0.1 M SPG buffer pH 5	25% (w/v) PEG 1500	135702
3		0.1 M SPG buffer pH 6	25% (w/v) PEG 1500	135703
4		0.1 M SPG buffer pH 7	25% (w/v) PEG 1500	135704
5		0.1 M SPG buffer pH 8	25% (w/v) PEG 1500	135705
6		0.1 M SPG buffer pH 9	25% (w/v) PEG 1500	135706
7	0.2 M Sodium chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135707
8	0.2 M Ammonium chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135708
9	0.2 M Lithium chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135709
10	0.2 M Magnesium chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135710
11	0.2 M Calcium chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135711
12	0.01 M Zinc chloride	0.1 M Sodium acetate pH 5	20% (w/v) PEG 6000	135712
13		0.1 M MIB buffer pH 4	25% (w/v) PEG 1500	135713
14		0.1 M MIB buffer pH 5	25% (w/v) PEG 1500	135714
15		0.1 M MIB buffer pH 6	25% (w/v) PEG 1500	135715
16		0.1 M MIB buffer pH 7	25% (w/v) PEG 1500	135716
17		0.1 M MIB buffer pH 8	25% (w/v) PEG 1500	135717
18		0.1 M MIB buffer pH 9	25% (w/v) PEG 1500	135718
19	0.2 M Sodium chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135719
20	0.2 M Ammonium chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135720
21	0.2 M Lithium chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135721
22	0.2 M Magnesium chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135722
23	0.2 M Calcium chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135723
24	0.01 M Zinc chloride	0.1 M MES pH 6	20% (w/v) PEG 6000	135724
25		0.1 M PCB buffer pH 4	25% (w/v) PEG 1500	135725
26		0.1 M PCB buffer pH 5	25% (w/v) PEG 1500	135726
27		0.1 M PCB buffer pH 6	25% (w/v) PEG 1500	135727
28		0.1 M PCB buffer pH 7	25% (w/v) PEG 1500	135728
29		0.1 M PCB buffer pH 8	25% (w/v) PEG 1500	135729
30		0.1 M PCB buffer pH 9	25% (w/v) PEG 1500	135730
31	0.2 M Sodium chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135731
32	0.2 M Ammonium chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135732
33	0.2 M Lithium chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135733
34	0.2 M Magnesium chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135734
35	0.2 M Calcium chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135735
36	0.01 M Zinc chloride	0.1 M HEPES pH 7	20% (w/v) PEG 6000	135736
37		0.1 M MMT buffer pH 4	25% (w/v) PEG 1500	135737
38		0.1 M MMT buffer pH 5	25% (w/v) PEG 1500	135738
39		0.1 M MMT buffer pH 6	25% (w/v) PEG 1500	135739
40		0.1 M MMT buffer pH 7	25% (w/v) PEG 1500	135740
41		0.1 M MMT buffer pH 8	25% (w/v) PEG 1500	135741
42		0.1 M MMT buffer pH 9	25% (w/v) PEG 1500	135742
43	0.2 M Sodium chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135743
44	0.2 M Ammonium chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135744
45	0.2 M Lithium chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135745
46	0.2 M Magnesium chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135746
47	0.2 M Calcium chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135747
48	0.01 M Zinc chloride	0.1 M Tris pH 8	20% (w/v) PEG 6000	135748

## The PACT Suite Composition Table

Number	Salt	Buffer	Precipitant	Cat. no. (Refill-Hit Solution, 4 x 12.5 ml tubes)
49	0.2 M Sodium fluoride		20% (w/v) PEG 3350	135749
50	0.2 M Sodium bromide		20% (w/v) PEG 3350	135750
51	0.2 M Sodium iodide		20% (w/v) PEG 3350	135751
52	0.2 M Potassium thiocyanate		20% (w/v) PEG 3350	135752
53	0.2 M Sodium nitrate		20% (w/v) PEG 3350	135753
54	0.2 M Sodium formate		20% (w/v) PEG 3350	135754
55	0.2 M Sodium acetate		20% (w/v) PEG 3350	135755
56	0.2 M Sodium sulfate		20% (w/v) PEG 3350	135756
57	0.2 M Potassium/sodium tartrate		20% (w/v) PEG 3350	135757
58	0.2 M Sodium/potassium phosphate		20% (w/v) PEG 3350	135758
59	0.2 M Sodium citrate		20% (w/v) PEG 3350	135759
60	0.2 M Sodium malonate		20% (w/v) PEG 3350	135760
61	0.2 M Sodium fluoride	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135761
62	0.2 M Sodium bromide	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135762
63	0.2 M Sodium iodide	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135763
64	0.2 M Potassium thiocyanate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135764
65	0.2 M Sodium nitrate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135765
66	0.2 M Sodium formate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135766
67	0.2 M Sodium acetate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135767
68	0.2 M Sodium sulfate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135768
69	0.2 M Potassium/sodium tartrate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135769
70	0.2 M Sodium/potassium phosphate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135770
71	0.2 M Sodium citrate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135771
72	0.2 M Sodium malonate	0.1 M Bis Tris propane pH 6.5	20% (w/v) PEG 3350	135772
73	0.2 M Sodium fluoride	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135773
74	0.2 M Sodium bromide	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135774
75	0.2 M Sodium iodide	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135775
76	0.2 M Potassium thiocyanate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135776
77	0.2 M Sodium nitrate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135777
78	0.2 M Sodium formate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135778
79	0.2 M Sodium acetate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135779
80	0.2 M Sodium sulfate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135780
81	0.2 M Potassium/sodium tartrate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135781
82	0.2 M Sodium/potassium phosphate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135782
83	0.2 M Sodium citrate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135783
84	0.2 M Sodium malonate	0.1 M Bis Tris propane pH 7.5	20% (w/v) PEG 3350	135784
85	0.2 M Sodium fluoride	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135785
86	0.2 M Sodium bromide	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135786
87	0.2 M Sodium iodide	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135787
88	0.2 M Potassium thiocyanate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135788
89	0.2 M Sodium nitrate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135789
90	0.2 M Sodium formate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135790
91	0.2 M Sodium acetate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135791
92	0.2 M Sodium sulfate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135792
93	0.2 M Potassium/sodium tartrate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135793
94	0.2 M Sodium/potassium phosphate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135794
95	0.2 M Sodium citrate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135795
96	0.2 M Sodium malonate	0.1 M Bis Tris propane pH 8.5	20% (w/v) PEG 3350	135796

## 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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