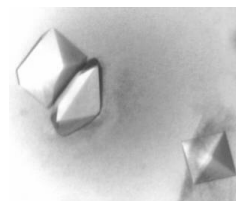


The Pre-Screen Assay Suite

For screening of optimal initial protein concentration



The Pre-Screen Assay Suite provides:

- Increased probability of crystallization events in subsequent screening
- Ready-to-use, pre-filled kit for fast results
- Controlled environment and fresh solutions every time
- Maximized reproducibility through online access to production reports

The selection of the initial set of variables — i.e., protein concentration, precipitant concentration, and precipitant type — has a major impact on successful crystallization screening. The traditional approach is to use one protein concentration for all precipitant types — salts, polymers, and organics. This does not take into account the fact that protein solubility usually varies according to precipitant type. Starting initial screening with a suboptimal protein concentration wastes protein and precious time. The Pre-Screen Assay kit is the first, easy-to-use kit that helps optimize protein concentration for the different precipitant types, thus increasing the probability of nucleation and crystallization events during initial screenings. The Pre-Screen Assay is arranged in three mini-grids (6 conditions each) with one mini-grid for each precipitant type. Using two concentrations of the same chemical, a direct relation can be observed between protein concentration, precipitant concentration, and precipitant chemical family. Results are divided between insoluble (precipitation in most cases) and soluble (clear drops). By analyzing the results of the assay, the concentration of protein to be used in initial screening versus most popular chemical families can be easily determined.

The Pre-Screen Assay Suite Composition Table

Number	Well	Chemical 1	Chemical 2	Buffer
1	A1	4.3 M Sodium chloride		
2	A2	1.5 M Sodium chloride		
3	A3	30% (v/v) Glycerol	2 M Ammonium sulfate	
4	A4	15% (v/v) Glycerol	2 M Ammonium sulfate	
5	A5	30% (v/v) PEG 400		
6	A6	12% (v/v) PEG 400		
7	B1	3.2 M Ammonium sulfate		
8	B2	1.1 M Ammonium sulfate		
9	B3	40% (v/v) 2-Propanol		
10	B4	15% (v/v) 2-Propanol		
11	B5	30% (w/v) PEG 4000		
12	B6	12% (w/v) PEG 4000		
13	C1	3 M Na/K phosphate pH 7.0		
14	C2	1 M Na/K phosphate pH 7.0		
15	C3	65% (v/v) MPD		
16	C4	23% (v/v) MPD		
17	C5	30% (w/v) PEG 8000		
18	C6	12% (w/v) PEG 8000		
19	D1	2 M Ammonium sulfate		0.1 M Sodium acetate pH 4.6
20	D2	2 M Ammonium sulfate		0.1 M Tris pH 8.5
21	D3	50% (v/v) MPD		0.1 M Sodium acetate pH 4.6
22	D4	50% (v/v) MPD		0.1 M Tris pH 8.5
23	D5	20% (w/v) PEG 4000		0.1 M Sodium acetate pH 4.6
24	D6	20% (w/v) PEG 4000		0.1 M Tris pH 8.5

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			■	

Find out more and order EasyXtal and NeXtal products online at
www.qiagen.com/crystallization

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