



## Microlytic PurePEGs Screen



The PurePEGs Crystallization Screen features conditions that each contain a mixture of purified polyethylene glycols, ranging from 300 MW to 8000 MW. At a total concentration of 22.5% PEG combined with various salts and buffers, the conditions are designed to span a wide cross section of PEG crystallization space.

- ★ 96 Individual Crystallization Conditions
- ★ Ultra-pure PEGs - BioUltra Grade
- ★ Polydisperse PEG Cocktail - 5 PEGs in each condition
- ★ pH measured and recorded for both the stock buffers and final crystallization conditions
- ★ Highest control of manufacturing impurities during PEG synthesis
- ★ Individual condition refills and optimization reagents available

The 96 conditions of the Microlytic PurePEGs Screen are available in either 1.0 ml deep well block, or 10 ml tube formats.

### **Leverage the power of combinatorial PEG screening with a screen that is compatible with both vapor diffusion and free-interface diffusion crystallization experiments.**

Many successful crystallization conditions comprise combinations of PEGs and salts adjusted to a particular pH. However, the necessity to sample a broad range of PEG precipitants during initial sparse matrix screening renders comprehensive PEG screening at this stage highly challenging. Interestingly, there is evidence to suggest that protein concentration conditions identified using a particular PEG can be repeated when using mixtures of PEGs as a single precipitant. Consequently, a more rational screening strategy should be to use mixtures of PEGs rather than conditions containing individual PEGs. In vapor diffusion experiments, this approach significantly minimizes the number of conditions to be sampled and the volume of protein necessary to explore PEG crystallization space. In free-interface diffusion experiments utilizing the Microlytic Crystal Former, this approach becomes even more powerful as complexity of the PEG gradient established in each crystallization channel provides even more comprehensive screening of this highly productive precipitant group.

#### **References:**

- J. Newman et al. Acta Crystallogr D. 61, 1426 (2005)
- R. Page et al. Acta Crystallog D. 59, 1028 (2003)
- J.W. Wooh et al. Acta Crystallog D. 59, 769 (2003)
- J.T. Bukrinsky et al. J Appl Cryst. 34, 533 (2001)

Anatrace is a registered trademark of Anatrace Products, LLC