



Solubility & Stability Screen 2 - 0.5 ml, Deep Well block format - 0.5 ml

- Solubility & Stability Screen 2 is designed to assist in the identification of optimal buffer, pH and ionic strength formulations that promote protein solubility and stability
- Sample buffer optimization for crystallization, cryo-electron microscopy, and NMR

Product codes:

Reference: HR 2413

Product gallery:



Product description:

- Compatible with ThermoFluor (Differential Scanning Fluorimetry, DSF, Protein Thermal Shift) and Dynamic Light Scattering assays
- Formulation of 12 unique buffers, pH 4.5 - 9.5, versus 8 levels of ionic strength
- Evaluate varying ionic strength in the presence and absence of buffer
- Evaluate varying buffer type and pH in different levels of ionic strength
- 96 sterile filtered reagents
- Concentrated reagent formulation
- Developed at Hampton Research

Protein solubility and stability are universally required in a wide range of applications, including general biochemical studies, the preparation of proteins in diagnostics and pharmaceuticals, structural biology and crystallization.

The preparation of a concentrated, soluble and stable protein sample can often be a difficult task as proteins often aggregate, precipitate or denature.

Protein solubility and stability is affected by many different chemical factors including pH, buffer



type, ionic strength and protein specific additives. pH, buffer type and ionic strength are dominant protein solubility and stability variables that can be evaluated and optimized using the Solubility and Stability Screen 2.

No clear correlation between intrinsic properties of proteins and solubility and stability exist, so systematic screening can help to identify optimal sample buffer conditions. Protein solubility and stability screening, performed using Dynamic Light Scattering and ThermoFluor assays together with the Solubility and Stability Screens and Slice pH can be an extremely data rich, informative, efficient, and cost-effective method for the identification of sample buffer conditions that maximally stabilize a protein for protein purification, formulation, crystallization, and functional characterization.

Dynamic Light Scattering (DLS) is an established technique for determining the size, monodispersity and polydispersity of proteins in solution. DLS with a plate reader allows a multitude of buffers, pH, ionic strength, protein specific additives and temperature to be screened. Combining Solubility & Stability Screens with DLS, particle size and size distribution, unfolding of proteins, crystallizability, thermal stability, aggregation and solubility behavior and be evaluated in a high throughput format.

The ThermoFluor assay is an established technique for assessing protein thermostability in solution. ThermoFluor allows systematic assessment of many reagents simultaneously, uses only small a small amount of protein, and is accessible to anyone with a real-time PCR instrument.

Once an optimal buffer, pH and ionic strength is identified, the sample can be exchanged into the new optimal buffer. Using this optimized sample, further ThermoFluor assays with the Solubility & Stability Screen, Silver Bullets, Silver Bullets Bio and Additive Screen can be performed to identify protein specific additives that further promote solubility and stability of the protein.

ThermoFluor is a registered trademark of Johnson & Johnson.

Protein Thermal Shift is a trademark of ThermoFisher.

Sypro is a registered trademark of ThermoFisher.

Per maggiori informazioni visita il sito <https://hamptonresearch.com/>

Product features:

CRF - TIPO: Solubility & Stability Screen 2