



# Silver Bullets - 0.5 ml, Deep Well block format - 500 µl

- Additive screen for the optimization of protein crystals
- For use with soluble proteins and membrane proteins
- Additive screen to discover different crystal forms
- Secondary or orthogonal crystallization screen when traditional screens are not successful
- Additive screen for the optimization of protein solubility and stability

## Product codes:

Reference: HR 2096

## Product gallery:

**silver • bullets™**

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## Product description:

- Developed at Hampton Research
- Screens a portfolio of small molecules and excipients for their ability to establish stabilizing, intermolecular, hydrogen bonding, hydrophobic and electrostatic interactions which could promote lattice formation and crystallization
- Small organic salts and organic acids
- Biologically active small molecules
- Amino acids & peptides
- Macromolecular digests
- CO-factors & ligands
- Biochemical pathway intermediates
- Nucleotides, pharmacophores, & carbohydrates

Silver Bullets screens a portfolio of small molecules for their ability to establish stabilizing, intermolecular, hydrogen bonding, hydrophobic and electrostatic interactions which could promote



stability, lattice formation, and crystallization.<sup>1-3</sup>

Published results with the Silver Bullets have been very encouraging, with more than twice as many proteins being crystallized overall as were crystallized from controls free of any small molecules.<sup>1-3</sup>

X-ray diffraction analysis has revealed the small molecule Silver Bullets in the crystal lattice, involved at the centers of hydrogen bonding networks and electrostatic interaction.<sup>1-3</sup> Silver Bullets is compatible with hanging, sitting and sandwich drop vapor diffusion, microbatch, free interface, and microdialysis crystallization methods. Silver Bullets can be used with Dynamic Light Scattering (DLS), ThermoFluor, and Size Exclusion Chromatography assays.

Silver Bullets reagent portfolio

- Organic salts and acids
- Biologically active small molecules
- Amino acids and peptides
- Macromolecular digests

The Silver Bullets kit is a library of small molecules that have been shown to promote crystal lattice formation. X-ray diffraction analysis has demonstrated the reagents have the ability to:

- Stabilize the conformation of the protein
- Perturb the interaction of the protein with the solvent
- Participate in forming important lattice contacts
- Build the crystal lattice by forming reversible cross-links between the macromolecules in the crystal

The Silver Bullets kit is composed of 96 solutions in a single Deep Well block (Greiner 786261 block specifications: Total Volume: 0.5 mL Working Volume: 0.03 - 0.7 mL at Room Temperature 0.03 - 0.55 mL at -20°C, Well Profile: Conical (V), Bottom Well Bottom: Solid, Plate Color: Translucent), HT format.

Each Silver Bullets reagent is a mixture of small molecules or macromolecular digests in 0.02 M HEPES sodium pH 6.8 buffer. Each solution contains between 2 and 20 small molecules.

Silver Bullets reagent volume is 0.5 ml (each well).

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

### **Product features:**

CRF - TIPO: Silver Bullets