

# Reconstituting GMP ProDots™ Proteins

GMP ProDots Proteins are pre-aliquoted animal-free GMP cytokines packaged into single-use bags for easy incorporation into closed-system cell therapy manufacturing workflows. This protocol details how to reconstitute GMP ProDots into cell culture media through either a weldable tube or a needle-free port.

GMP ProDots are part of the ScaleReady portfolio and are manufactured by Bio-Techne™.

## Weldable Tubing Method

1. Hang the GMP ProDots Proteins bag directly below the media bag. Sterile weld the GMP ProDots Proteins bag directly to the media bag.
2. Unclamp the tubing and allow up to 25 mL of media to flow into the GMP ProDots Proteins bag by gravity. Clamp the tubing after media has been added to the bag. Dissolve the GMP ProDots Proteins by gently mixing the media around in the bag. Visually confirm that the GMP ProDots Proteins have completely dissolved.
3. Release the tubing clamp and allow the reconstituted protein to flow into the media bag. Raise the GMP ProDots Proteins bag above the media bag to ensure that all dissolved protein is transferred to the media bag. Repeat steps 2 and 3 to perform a second wash.
4. Clamp the tubing to prevent media from flowing back into the GMP ProDots Proteins bag.
5. Media supplemented with cytokines is now ready for addition into G-Rex® closed-system bioreactors or for closed-system liquid exchanges using Lovo® Automated Cell Processing System.
6. If using more than one GMP ProDots Proteins bag, repeat steps 1-5 with additional GMP ProDots Proteins bags.

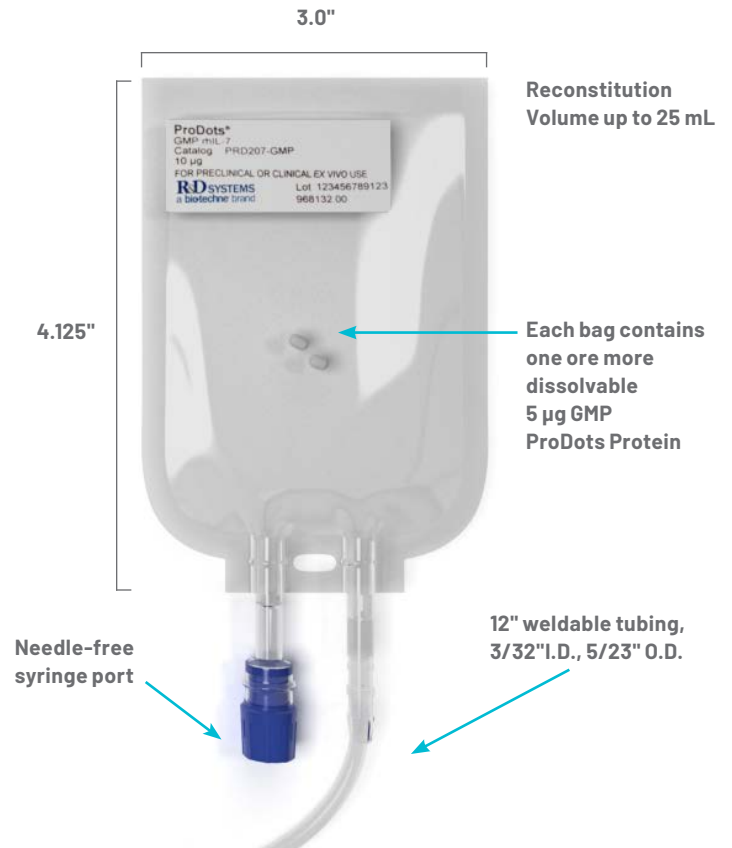


Video available at [youtu.be/FgQLXU-NT2Q](https://youtu.be/FgQLXU-NT2Q)

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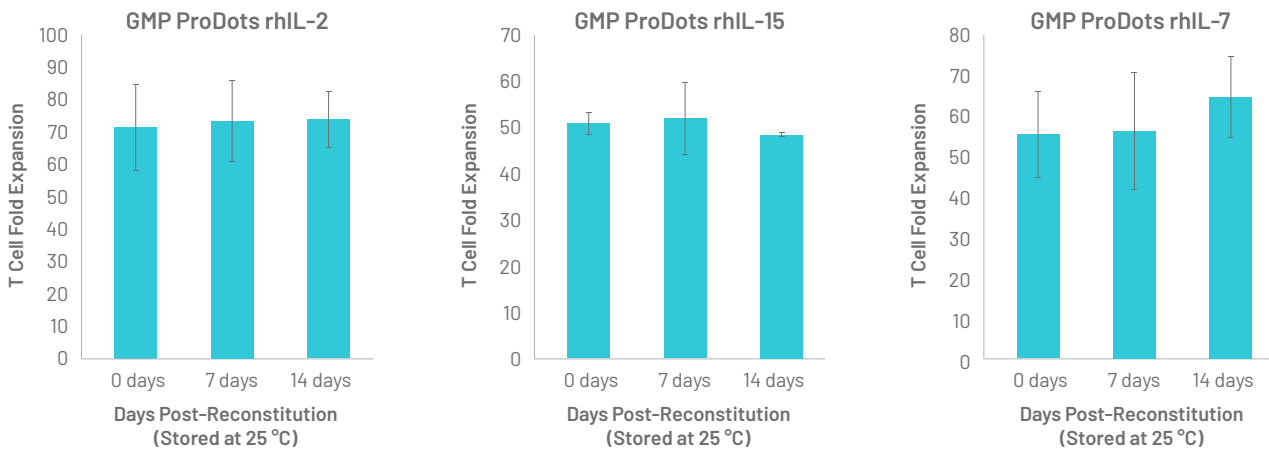
## Needle-free Port Method

1. Connect a needle-free syringe with up to 25 mL of media directly to the GMP ProDots Proteins bag.
2. Inject media into the GMP ProDots Proteins bag. Dissolve protein by gently mixing the media around in the bag. Visually confirm that the GMP ProDots Proteins have completely dissolved.
3. Draw the reconstituted protein out of the bag with the syringe. Repeat steps 2 and 3 to perform a second wash.
4. Inject reconstituted protein into the media bag.
5. Media supplemented with cytokines is now ready for addition into G-Rex closed-system bioreactors or for closed-system liquid exchanges using the Lovo Automated Cell Processing System.
6. If using more than one GMP ProDots Proteins bag, repeat steps 1–4 with additional GMP ProDots Proteins bags



## Cytokine Stability after Reconstitution

GMP ProDots cytokines remain active for up to 14 days (25 °C) or 44 days (2–8 °C) following reconstitution in cell culture media. Stable activity after reconstitution can improve manufacturing efficiency by enabling pre-preparation of cytokine-supplemented media and utilization of media over multiple process runs.



**GMP ProDots have Stable Activity Following Reconstitution.** GMP ProDots were reconstituted in ExCellerate™ T Cell Expansion Media (IL-2, 20 ng/mL; IL-7, 10 ng/mL; IL-15, 5 ng/mL) and stored for 0, 7, or 14 days at 25 °C. Human T cells were expanded in flasks for 10 days using the reconstituted media along with the GMP Cloudz T Cell Activation Kit.

[scaleready.com](https://scaleready.com)

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ScaleReady is a Joint Venture formed by Bio-Techne, Fresenius Kabi, and Wilson Wolf. Combining selected offerings from the three partners, the ScaleReady manufacturing platform combines tools and technologies for cell culture, cell activation and expansion, gene editing, and cell processing.

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