

## Product Information

### s-TDM Adjuvant

Catalog Number **S3452**

Storage Temperature 2–8 °C

#### Product Description

The s-TDM Adjuvant is a stable oil-in-water emulsion which can be used as an alternative to the classical Freund's water-in-oil emulsion or as a boost for the Sigma Adjuvant System® (Catalog Number S6322). The s-TDM Adjuvant is a powerful immunostimulant.<sup>1</sup>

The product is non-viscous (2% squalene oil-in-water emulsion) and easily prepared. Each vial contains 0.5 mg of synthetic trehalose dicorynomycolate (an analogue of trehalose dimycolate from the cord factor of the tubercle bacillus) in 44 µL of squalene oil, 0.2% TWEEN® 80, and water. The s-TDM Adjuvant is tested for suitability in mice.

#### Equipment Recommended but Not Provided.

- One 2.5 mL all-plastic or siliconized glass luer lock syringe
- One 20 or 21-gauge needle

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

Store the adjuvant at 2–8 °C until use. Adjuvant retains activity for 2 years when stored under these conditions. Do Not Freeze.

#### Procedure

##### Recommended Injection Protocol

The adjuvant may be used in mice according to the following injection doses:

Mice: a 200 µL dose intraperitoneally or subcutaneously (100 µL in each of 2 sites).

For injection protocols in other animals, information can be found in the literature.

#### Recommended Antigen Concentration

This adjuvant is recommended for use with strong immunogens. The recommended antigen concentration range is 0.05–0.25 mg per mL of saline.

#### Preparation for Inoculation

Note: Prior to antigen addition, warm contents of vial to 40–45 °C for ~30 minutes. Add 2.0 mL of sterile saline containing the recommended amount of antigen. The final emulsion contains a concentration of 2% oil.

1. Inject antigen-saline solution (2 mL) directly into the vial through the rubber stopper using a syringe fitted with a 20 or 21-gauge needle (leave the cap seal in place).
2. Vortex the vial vigorously for 2–3 minutes to form emulsion. Invert the vial and vortex for 1 minute to ensure reconstitution of any product adhering to the stopper.
3. If the entire contents of the vial will not be used initially, reconstitute with 1 mL of saline without antigen. This emulsion can be stored at 2–8 °C for up to 60 days. Do Not freeze. To use, mix aliquots 1:1 with antigen in saline.
4. Prior to inoculation, warm the vial to 25–37 °C until it reaches at least room-temperature and vortex briefly.

#### Boosting

Boost on day 21 or 28, bleed 10-14 days after booster injection. Boost every 3–4 weeks thereafter. Use the same procedure for each injection.

#### Reference

Petrovsky, N., and Aguilar, J. C., Vaccine adjuvants: current state and future trends. *Immunology and Cell Biology*, **82**, 488–496 (2004).

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