

Product Information

Adjuplex™ Vaccine Adjuvant

Catalog Number **A0362**

Storage Temperature 2–8 °C

Product Description

Adjuplex is a sterile, endotoxin-free adjuvant available as a concentrated liquid. **NOT FOR HUMAN USE.**

- Suitable for use with all types of antigens such as whole organism (live or inactivated), protein, polysaccharide, DNA, virus vector, VLP
- Suitable for all routes of administration including intramuscular, subcutaneous, intradermal, and mucosal including intranasal
- Non-denaturing
- No oils
- No detergents
- No preservatives
- No animal-origin, microbial-origin, nor recombinant components
- Free of allergens, enzymes, mercury, aluminum, or other metals

Adjuplex potentiates immune responses to vaccines without reactogenicity and has demonstrated superiority to Alum, Freund's adjuvant, Ribi-R730, and numerous other experimental adjuvants. In laboratory animals, Adjuplex has been shown to improve the protective immune response to a variety of experimental human vaccines including HIV, influenza, rotavirus, and malaria. Adjuplex alone is non-immunogenic.

Precautions and Disclaimer

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

Preparation Instructions

Always shake Adjuplex well before using.

Storage/Stability

Store the product at 2–8 °C. Do not freeze.

To ensure the integrity of Adjuplex, rather than sampling repeatedly from the vial, the product should be aliquoted aseptically into sterile containers. Sterile Type 1 borosilicate glass containers with polypropylene closures are recommended for this purpose.

Do not reuse an opened vial of Adjuplex if it appears contaminated.

Procedure

Note: Adjuplex is provided as a liquid concentrate that must be diluted prior to use. The optimal final concentration may vary depending on animal species, route of administration, injection volume and antigen. For small animals in the range of 2-3 kg body weight, Adjuplex should not exceed 20% v/v of the final injection formulation. The user should consider a range of antigen and Adjuplex concentrations and injection volumes to define the optimum formulation for a particular animal model.

Antigen Preparation – To ensure proper formulation of antigen with Adjuplex, use an appropriate sterile diluent such as phosphate buffered saline (PBS) and ensure mixing is complete. Endotoxin-free Dulbecco's PBS without Ca^{2+} and Mg^{2+} is recommended, while unbuffered normal saline is not recommended.

Before mixing with Adjuplex, prepare sufficient antigen solution in the appropriate diluent at the desired initial concentration. As an example, a final injection formulation containing 20% Adjuplex is prepared by mixing 1 part of Adjuplex concentrate to 4 parts of prepared antigen (v/v). The antigen should be prepared initially at $1.25\times$ the final desired antigen concentration of the injection formulation. For example, for a 20 μg antigen dose in a 0.5 ml injection volume, the final concentration of the antigen is 40 $\mu\text{g}/\text{ml}$; therefore, the antigen solution should be prepared at 50 $\mu\text{g}/\text{ml}$ before mixing with Adjuplex.

Guidelines for preparing 10 ml of final antigen/adjuvant injection formulation containing 20% Adjuplex

1. In a sterile 50 ml container, e.g., centrifuge tube, aseptically prepare 8 ml of antigen solution in the appropriate diluent at 1.25× the final desired concentration of the antigen/adjuvant injection formulation (see Antigen Preparation).
2. Aseptically remove 2 ml of Adjuplex from vial according to the following steps:
 - a. Shake vial well
 - b. Wipe septum top with 70% ethanol or 70% isopropanol
 - c. Enter septum with sterile needle and syringe
 - d. Remove desired quantity
 - e. Wipe septum top with 70% ethanol or 70% isopropanol
3. Aseptically add the 2 ml of Adjuplex to the 8 ml of antigen solution in the container.
4. Replace container cap and secure tightly.
5. Shake well until mixing is complete. In some cases, vortexing may also be required, depending on the antigen solution.

The final antigen/adjuvant injection formulation ready for injection should be homogeneous in appearance.

Adjuplex is a trademark of Advanced BioAdjuvants, LLC.

Use of this product is covered by US patents 6,676,958 and 7,879,333 and corresponding patents under prosecution outside the US.

Commercial use of this product requires additional licenses from Advanced BioAdjuvants LLC.

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