

Imject[®] Alum

77161

0175.3

Number	Description
77161	Imject Alum , 50mL, contains an aqueous solution of aluminum hydroxide (40mg/mL) and magnesium hydroxide (40mg/mL) plus inactive stabilizers

Storage: Upon receipt store at room temperature. Product shipped at ambient temperature.

Note: This product is supplied for research or manufacturing applications only and is not intended for clinical use.

Introduction

Generating a strong immune response with immunogens can be a slow and inefficient process. Adding an adjuvant, such as Thermo Scientific Imject Alum, to the antigen stimulates an improved immune response compared to the antigen alone. Adjuvants increase the immune response by localizing antigen for an extended time and attracting the appropriate cells (T cells, B cells and APC) to interact with the immunogen and each other. Adjuvants are mixed and injected along with antigen to prevent catabolism.

Alum is frequently used as an alternative to Freund's adjuvants because alum is less hazardous. Although Freund's complete and incomplete adjuvants produce a stronger, longer lasting immunogenic response compared to other adjuvants, they are hazardous to the researcher and can produce lesions at the injection site.

A traditional drawback when using alum is the reagent preparation time; however, Imject Alum is preformulated and simply requires mixing with the antigen and then injection into the animal. Imject Alum provides an effective and convenient alternative to the more hazardous Freund's reagents. This product can be used with any immunogen kit for preparing hapten-carrier conjugates.

Protocol for Mixing Immunogen with the Imject Alum

Note: To avoid anaphylaxis, do not use adjuvants for intravenous injection.

1. Shake the capped bottle of Imject Alum well before use.
2. Add Imject Alum dropwise with constant mixing to the immunogen solution so the final volume ratio of Imject Alum to immunogen is 1:1 (e.g., add 100 μ L of Imject Alum to 100 μ L of immunogen) to 1:3 (e.g., add 100 μ L of Imject Alum to 300 μ L of immunogen solution).
3. Continue mixing for 30 minutes after adding the Imject Alum. Mixing allows the Imject Alum to effectively adsorb antigen.
4. Immunize animal according to standard protocol (see Harlow and Lane, 1988, for more information). The immunogen concentration before mixing with alum and the species being tested will determine injection amount. Generally, 50-100 μ g of immunogen is used per mouse per immunization. Rabbits require 100 μ g of immunogen per injection at each subcutaneous site. For rabbit or mouse, a typical concentration of immunogen (before mixing with Imject Alum) is 100 μ g per 100 μ L.

Related Thermo Scientific Products

77600	Imject mcKLH (in PBS)
77605	Imject Maleimide-Activated mcKLH, 10mg
77663	Imject Maleimide PEGylated mcKLH, 10mg
77130	Imject Blue Carrier Protein, 100mg
77140	Imject Freund's Complete Adjuvant
77145	Imject Freund's Incomplete Adjuvant

General Reference

Harlow, E. and Lane, D. (1988). *Antibodies A Laboratory Manual*. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 56-100.

This product ("Product") is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation") and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product ("Buyer").

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer's exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

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