Aluminum Hydroxide Gels Adjuvant

Cat. No.: A1507801 | Pack size: 10 mL / 50 mL | Storage: Room temperature

Overview

Aluminum Hydroxide Adjuvant (Aluminum Hydroxide Gels Adjuvant) is an insoluble aluminum hydroxide gel suspension, commonly referred to as aluminum adjuvant or alum adjuvant. Its mechanism of action relies on electrostatic adsorption with immunogens to form antigen depots at the injection site. This enhances the recruitment and uptake of antigen-presenting cells (APCs), thereby significantly promoting humoral (antibody) immune responses and TH2-type cellular immune responses. Compared with Freund's Adjuvant, Aluminum Hydroxide Adjuvant offers higher safety, easier mixing, lower hazard potential, and does not require emulsification. This product is for research use only and shall not be used in humans or veterinary applications.

Applications

1. Immunizing various laboratory animals for the preparation of polyclonal or monoclonal antibodies.

2. Studying antigen-specific TH2-type cellular immune responses in animal models, such as inducing disease models of allergy, asthma, etc.

3. Serving as a reference standard of classic vaccine adjuvants when researching various novel vaccine adjuvants in animal models.

Recommended Adjuvant Dosages for Antibody Preparation (Based on Aluminum Ion Content)

1. Mice: 50-100 μg per injectionion;

2. Rats, Guinea Pigs: 100-200 μg per injectionion;

3. Rabbits: 200-500 μg per injectionion;

4. Monkeys, Sheep: 0.5-1 mg per injectionion.

Specifications

Attribute	Value

Attribute	Value
Synonyms	Aluminum Hydroxide Gels Adjuvant | Aluminum Hydroxide Adjuvant | Alum Adjuvant
Specifications & Purity	BioReagent, sterile, Aluminum Ion Content: 10 mg/mL
Stability And Storage	Store at room temperature long term (12 months).
Storage	Room temperature
Shipped In	Normal
Application	759, 760

Safety & Precautions

- ☐ Read the current Safety Data Sheet (SDS) before use and handle the product according to institutional EHS procedures.
- ☐ Wear a lab coat, disposable gloves, and appropriate eye protection during operation.
- ☐ Use the reagent as soon as practicable after opening and avoid contamination of the container or working solution.

Quality Control

QC Item	Method	Acceptable Range
Documentation review	Lot-specific COA and product label review	Catalog number, lot number, pack size, storage condition, and release status are consistent with approved records.
Appearance / integrity	Visual inspection on receipt	Container is intact; reagent appearance conforms to lot-specific specifications.
Functional suitability	Application-specific internal QC or reference procedure	Performance meets the approved lot-specific acceptance criteria.

Troubleshooting

Issue	Possible Causes	Corrective Action

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Weak or no expected signal / staining / reaction	• Reagent not equilibrated or stored correctly • Insufficient incubation or reaction time • Sample condition outside recommended range	• Verify storage conditions and expiration status • Optimize incubation/reaction time using a positive control • Use fresh or appropriately prepared samples
High background or nonspecific result	• Over-staining or excessive reaction time • Incomplete washing, differentiation, or cleanup • Sample matrix interference	• Shorten staining/reaction time or dilute reagent if applicable • Increase washing/differentiation stringency • Include blank and negative controls
Inconsistent replicate results	• Uneven sample preparation or mixing • Pipetting variability • Temperature or timing variation	• Standardize sample preparation and mixing • Use calibrated pipettes and consistent timing • Run controls with each batch

Recommended Applications

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Contact & Global Offices

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Limitations & Disclaimer

- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.
- Where any product component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.
- Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the product for their specific application.
- Aladdin product labels, SDS, COA, and approved specifications take precedence over this document. If product formulation, label, SDS, storage conditions, pack size, or quality specifications change, this document should be reviewed and reissued.