Aluminum Hydroxide Gel 3% – High-Purity Suspension for Immunochemistry & Research, Concentration: 3% (18.0 mg/mL Al(OH)?),

Do inconsistent adjuvant performance or variable pH levels threaten the reproducibility of your immunoassays or vaccine studies? For critical applications like allergy research and adjuvant development, the quality of your Aluminum Hydroxide Gel is paramount. Our Aluminum Hydroxide Gel 3% is a precisely formulated, high-purity suspension of amorphous aluminum hydroxide, designed to meet the rigorous demands of immunochemistry, pharmaceutical research, and laboratory studies requiring a consistent and reliable aluminum hydroxide adjuvant.

Why Choose This Aluminum Hydroxide Gel? Solving Reproducibility &

MASTER SCIENCE, Dinkelbergstrasse 14, 4127 Birsfelden, Switzerland
E-mail: support@themsci.com, Website: www.themsci.com

Purity Challenges

Achieve consistent, publication-ready results with a gel specifically formulated to address common laboratory frustrations.

- Ensure Experimental Reproducibility: Variability in gel adsorption can ruin months of work. This high-purity aluminum hydroxide gel is manufactured to strict specifications, ensuring consistent particle size and surface properties. This reliability is critical for use as an adjuvant in vaccine research or as a standard in quality control tests, providing a dependable platform for your assays .
- Meet Stringent Quality & Purity Standards: Avoid introducing contaminants that could skew your data. Our gel meets or exceeds pharmacopeial standards for purity. It is rigorously tested for key impurities, including low chloride, sulfate, heavy metals, and arsenic, ensuring it does not interfere with sensitive biological or chemical analyses .
- Stable Formulation for Reliable Protocols: From intranasal allergy models to systemic sensitization, your protocols demand consistency. With a controlled concentration of 3% (?18.0 mg/mL as Al(OH)?) and a pH range of 5.5 to 8.0, this aluminum hydroxide suspension provides the stable, well-defined matrix required for successful and repeatable in-vivo and in-vitro studies .

Key Features & Benefits for the Research Laboratory

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This isn't just a chemical; it's a tool for discovery:

- Optimized for Immunochemistry: Specifically referenced in numerous published protocols for inducing allergic responses, demonstrating its established role in immunological research .
- Controlled Acid Neutralizing Capacity: Consistent reactivity ensures predictable performance when used in applications requiring acid interaction or as a standard for compendial tests .
- Excellent Stability: When stored properly in tight containers and protected from freezing, the gel maintains its homogeneous suspension and performance characteristics .
- Versatile for Formulation: It may contain suitable flavors or antimicrobial agents as needed, making it adaptable for both research and pharmaceutical development applications where a customizable alumina gel base is required .

Technical Specifications at a Glance

Product Identity & Composition

- Product Name: Aluminum Hydroxide Gel
- CAS Number: 21645-51-2
- Molecular Formula: Al(OH)?

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- Molecular Weight: 78.00 g/mol
- Description: A white to nearly white, viscous suspension of amorphous aluminum hydroxide in water .

Concentration & Potency

- Nominal Concentration: 3%
- Al(OH)? Content: ? 18.0 mg/mL
- Labeled Amount Compliance: Contains 90.0% to 110.0% of the labeled amount of Al(OH)? .

Key Performance Characteristics

- pH (potentiometric): Between 5.5 and 8.0 .
- Acid-Neutralizing Capacity: Meets compendial requirements (e.g., not less than 65% of expected mEq value) .
- Particle Size: Homogeneous suspension suitable for analytical and research applications.

Purity & Impurity Limits

- Chloride: ? 0.035% (based on Al(OH)? content) .

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- Sulfate: Meets strict pharmacopeial limits .
- Heavy Metals: ? 0.0005% (5 ppm) .
- Arsenic: ? 0.00008% (0.8 ppm) .
- Microbial Limits: Total aerobic microbial count ? 100 CFU/mL; meets test for absence of *E. coli* .

Storage & Handling

- Storage Conditions: Preserve in tight containers and avoid freezing .
- Shelf Life: Stable for a minimum of 2 years when stored as recommended.

Ready to Standardize Your Immunological Assays with a Trusted Aluminum Hydroxide Adjuvant?

Don't let reagent variability compromise your next critical experiment. Choose the gel that provides the purity and consistency your research demands.

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