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## Alu-Gel-S suspension

Cat. No. 12261

### Product Description:

<b>General</b>	Alu-Gel-S is an aluminium hydroxide gel with a high degree of purity. The special techniques used in its manufacture ensure a stable gel which has an uniformly high adsorption capacity.
<b>Features</b>	<ul style="list-style-type: none"><li>• Aluminium hydroxide, ca. 1.3 % (measured as <math>Al_2O_3</math>)</li><li>• Pyrogen free (as assayed in the supernatant), sterile, salt free</li><li>• Protein adsorption: approx. 12 mg/ml (for human serum albumin)</li></ul>
<b>Storage</b>	Alu-Gel-S should always be stored in containers of aluminium, pyrex glass or inert plastic as the adsorption capacity of Alu-Gel-S may be effected by impurities present in the material of other types of containers. <b>Freezing may completely destroy the colloidal nature of the gel, and hence must be avoided.</b>
<b>Application</b>	<p>Adjuvant for vaccine preparation</p> <p>Since adsorption is important for the adjuvant effect it is strongly recommended that the antigen adsorption is carefully monitored and optimized. If the antigen preparation is a complex mixture certain components may adsorb more readily than others. When delivered, Alu-Gel-S has an extremely low ionic strength and a pH of 6 – 7. Adsorption should be tested at pH intervals of 0.5 starting at pH 6 – 7 to find the optimum pH for a given antigen preparation. PH is adjusted by adding an adequate buffer like glycine. Some antigens contain conformational epitopes that are highly sensitive to pH. For example the foot-and-mouth disease virus loses most of its antigenicity following exposure to a pH of 6.5.</p> <p>Adsorption is accomplished simply by incubating the gel and the antigen (at your chosen pH) with slow stirring for a few hours or overnight. Multiple charged negative ions, especially phosphate ions, may interfere with the adsorption capacity and may even be used for eluting adsorbed antigen from the gel. In veterinary vaccine formulations the proportion of aluminium hydroxide gel suspension in the final vaccine varies considerably, but ranges as a rule from 15 % to 40 % v/v. The optimum dose of adjuvant is normally determined empirically in a pilot trial.</p> <p>It can be repeatedly autoclaved without losing any of its adsorption capacity. Alu-Gel-S is a poor heat conductor, therefore sterilization should take place in a stirred vessel at 121°C for one hour.</p>

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