Quil-A® Adjuvant
Saponin vaccine adjuvant
Catalog code: vac-quil
https://www.invivogen.com/quila

Distributed by InvivoGen for research use only. Not approved for use in humans.
Version 22G01-NJ

PRODUCT INFORMATION
Contents
• 1 g of lyophilized Quil-A® adjuvant
Note: Product is not sterile nor aseptically filled. However, prior to lyophilization Quil-A® adjuvant has been passed through a 0.22 micron filter. Hence, the product has very few colony forming units (CFU).
Storage and stability:
• Quil-A® adjuvant is provided lyophilized and shipped at room temperature.
• Lyophilized Quil-A® adjuvant can be stored from -25 °C to 25 °C. It is essential that Quil-A® adjuvant is not subjected to humidity, as the lyophilized product may contain a very low number of CFU.
• Lyophilized powder is stable for up to 5 years, provided the product is kept dry.
• Once dissolved and sterile-filtered, Quil-A® adjuvant should be stored at -20 °C.
Quality control:
• Purity and composition is assessed using high-performance liquid chromatography (HPLC) and high-performance thin-layer chromatography.
• The ability of Quil-A® adjuvant to hemolyze sheep red blood cells (SRBC) is used as an indirect read-out for the integrity of the saponin molecule.
• The dry-matter content is tested to verify the efficiency of the lyophilization, as low-water content in the final product is important for maximizing the shelf-life.

DESCRIPTION
Quil-A® adjuvant is a saponin adjuvant produced under GMP by Croda, a leader in the global vaccine adjuvants market, and purified by them through a proprietary process that ensures consistency and immunostimulatory potential. Quil-A® adjuvant is used in a wide variety of veterinary vaccines, as well as in immunological research into human and veterinary applications1,2. Quil-A® adjuvant contains the water-extractable fraction of saponins from the South-American tree, Quillaja saponaria Molina. These saponins belong to the group of triterpenoid saponins, that have a common triterpenoid backbone structure. Saponins induce a strong adjuvant response to T-dependent as well as T-independent antigens3. Saponins also induce strong cytotoxic CD8+ lymphocyte responses and potentiate the response to mucosal antigens2,3,4. When combined with cholesterol and phospholipids to form ISCOMs (Immunostimulatory complexes), Quil-A® adjuvant can activate both the cell-mediated and the antibody-mediated immune responses to a broad range of viral, bacterial, parasitic and tumor antigens4.


CHEMICAL PROPERTIES
CAS number: 8047-15-2
Dry matter: ≥95%

METHOD
Preparation of stock solution (10 mg/ml)
1. Weigh 100 mg of Quil-A® adjuvant. Place in a clean container.
2. Add 10 ml of distilled water to 100 mg of Quil-A® adjuvant.
3. Mix using a magnetic stirrer until all the material has dissolved.
4. Immediately after dissolving the lyophilized powder, pass it through a 0.22 micron sterility filter into a sterile container under laminar air flow (Class A) in Class B surroundings.
5. After sterile filtration the Quil-A® adjuvant solution should be stored frozen until use. Prepare aliquots to avoid repeated freeze-thaw cycles.
6. Due to the risk of alkaline hydrolysis, do not expose Quil-A® adjuvant to a pH above 8.5.

INJECTION ROUTE
Quil-A® adjuvant should only be injected subcutaneously or intramuscularly. Quil-A® adjuvant should never be injected intraperitoneally, as the surface activity of the saponin molecules can lead to chemical peritonitis and induce fibrous adhesions between the organs in the peritoneum.

DOSING GUIDELINES
Mice: ≤ 15 µg/dose
Rabbits: ≤ 50 µg/dose
Cattle: ≤ 750 µg/dose
Guinea pigs: ≤ 25 µg/dose
Pigs: ≤ 300 µg/dose

RELATED PRODUCTS

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Cat. Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum and emulsions</td>
<td>Squalene o/w</td>
<td>vac-adx-10</td>
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<tr>
<td>AddaVax</td>
<td>Al(OH)₃, gel</td>
<td>vac-alu-250</td>
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<tr>
<td>Alhydrogel® adjuvant</td>
<td>Complete Freund’s Adjuvant</td>
<td>vac-cfa-10</td>
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<tr>
<td>2′-3′-cGAMP VacciGrade™</td>
<td>STING agonist</td>
<td>vac-naga23</td>
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<tr>
<td>PRR ligands</td>
<td>Murine TLR9 agonist</td>
<td>vac-1826-1</td>
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<td>ODN 1826 VacciGrade™</td>
<td>TLR3 agonist</td>
<td>vac-pic</td>
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<td>Poly(I:C) VacciGrade™</td>
<td>For in vivo use</td>
<td>vac-pova</td>
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<tr>
<td>OVA Antigens</td>
<td>For detection: ELISPOT</td>
<td>vac-sin</td>
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<tr>
<td>EndoFit™ Ovalbumin</td>
<td>For detection: ELISPOT</td>
<td>vac-isq</td>
</tr>
</tbody>
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For a complete list of adjuvants provided by InvivoGen, please visit https://www.invivogen.com/vaccine-adjuvants.

Quil-A® is a trademark of Croda.