ADJUVANT FORMULATIONS FOR BACTERIAL AND VIRUS VACCINES AND METHOD OF MAKING SAME

A pharmaceutical composition including an adjuvant effective amount of a protected inosine monophosphate (IMP) compound. The pharmaceutical composition includes the protected IMP compound alone, or in combination with vaccine agents with or without additional adjuvants. The pharmaceutical composition can be utilized as a vaccine composition or can be included with existing vaccine compositions in order to increase a specific T lymphocyte mediated immune response thereto. Various methods relating to the pharmaceutical composition and the vaccine are described herein. The vaccines can be employed to prevent or treat infections. Additionally, the pharmaceutical compositions not only increase T-cell responses, but also confer, by pretreatment, nonspecific protection against a variety of pathogens. This combination of actions is appropriate for enhancing defense against bioterrorism with organisms like smallpox or anthrax.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7) : A61K 31/70
   US CL : 514/42, 45; 536/26.1
   According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
   U.S. : 514/42, 45; 536/26.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>SZABADOS. E. Inosine -5'-monophosphate analogues as inhibitors off Human IMP Cyclodrolase and Cellular Growth. March 1998, Vol. 44. No. 3, pages 617-623.</td>
<td>7-14,19,20,22,23</td>
</tr>
<tr>
<td>X</td>
<td>THOMPSON. L. Inosine 5'-Monophosphate vs Inoaine and Hypoxanthine as Substrates for Purine Salvage in Human Lymphoid Cells. 1985. Vol. 179, pages 432-436</td>
<td>1-5,8-11,30, 33</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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Date of the actual completion of the international search: 30 June 2003 (30.06.2003)
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