11. A method for producing an immunogenic product according to any one of claims **1** to **4**, the method comprising steps of:

a) contacting the at least one cytokine with a heterobifunctional crosslinker containing a NHS-ester, preferably N-[γ-maleimidobutyryloxy]-succinimide ester (sGMBS);

b) contacting the carrier protein with a heterobifunctional crosslinker containing a NHS-ester, preferably N-succinimidyl-S-acetylthioacetate (SATA) to generate a carrier-heterobifunctional crosslinker complex;

c) contacting the sGMBS-cytokine complex obtained at step (a) with the carrier-heterobifunctional crosslinker complex obtained at step (b).

12. Use of an immunogenic product according to any one of claims **1** to **4** or a composition according to any one of claims **5** to **10**, for the manufacture of a medicament for treating an inflammatory disorder, preferably wherein said disorder is associated with aberrant IL-4 and/or IL-13 expression or activity.

13. The use according to claim **12**, wherein the inflammatory disorder is selected from the group comprising asthma (either allergic or non-allergic), allergic conditions (such as, for example, food allergies, venom allergy, allergy to animals, drug allergy, hyper IgE syndrome, allergic rhinitis, allergic conjunctivitis and allergic enterogastritis), atopic disorders (such as, for example, atopic dermatitis, urticaria (including chronic idiopathic urticaria and chronic spontaneous urticaria), eczema), bullous pemphigoid, respiratory disorders (such as allergic and nonallergic asthma, chronic obstructive pulmonary disease (COPD)), nasal polyposis and other conditions involving airway inflammation (such as, for example, eosinophilia, fibrosis and excess mucus production including cystic fibrosis and pulmonary fibrosis, systemic sclerosis (SSc)); inflammatory and/or autoimmune disorders or conditions, gastrointestinal disorders or conditions (such as, for example, inflammatory bowel diseases (IBD) and eosinophilic esophagitis (EE), and eosinophilic-mediated gastrointestinal disease, ulcerative colitis and Crohn's disease); systemic lupus erythematosus, liver disorders or conditions (such as, for example, cirrhosis, and hepatocellular carcinoma), scleroderma; fibrotic diseases or

disorders (such as, for example, fibrosis of the liver (such as, for example, fibrosis caused by a hepatitis B and/or C virus)), scleroderma; solid tumors or cancers such as leukemia (such as, for example, B cell chronic lymphocytic leukaemia), glioblastoma, lymphoma (such as, for example, Hodgkin's lymphoma) and mastocytosis.

14. The use according to any one of claims **12** to **13**, wherein the inflammatory disorder is selected from asthma (e.g., allergic asthma), atopic dermatitis, chronic obstructive pulmonary disease (COPD), pulmonary fibrosis, food allergy, nasal polyposis and eosinophilic esophagitis, preferably wherein said inflammatory disorder is allergy, asthma, or atopic dermatitis.

15. The use according to any one of claims **12** to **13**, wherein the immunogenic product or the composition induces desensitization toward an allergen.

16. Use of an immunogenic product according to any one of claims **1** to **4** or a composition according to any one of claims **5** to **10** for the manufacture of a medicament for inducing desensitization of a subject allergic to a specific antigen, wherein said immunogenic product or composition and said specific antigen are to be administered to the allergic subject.