(produced by IMGENEX) or Alexa 555-labeled anti-GP2 antibody (produced by Abcam), and fluorescence images were observed with an all-in-one fluorescence microscope BZ-9000 (produced by Keyence Corporation). DAPI staining was used in combination for the observation of the fluorescence images.

[Table 1]

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11
Test group	Capsule A (10-hydroxydecanoic acid)	○	-	○	○	-	○	○	○	-	○	○
	Capsule B (10-hydroxydecanoic acid +Ag)	-	○	-	-	○	-	-	-	○	-	-
Control group	Capsule C (Ag)	-	○	-	-	○	-	-	-	○	-	-

		Day 12	Day 13	Day 14	Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
Test group	Capsule A (10-hydroxydecanoic acid)	-	○	○	○	-	○	○	-	○	○
	Capsule B (10-hydroxydecanoic acid +Ag)	○	-	-	-	○	-	-	○	-	-
Control group	Capsule C (Ag)	○	-	-	-	○	-	-	○	-	-

Ag: antigen, ○: Administered, -: Not administered

[0062] Examples of fluorescent immunohistostaining photographs are shown in Fig. 4. In order to enhance the visibility of Fig. 4, light and darkness are reversed. As shown in Fig. 4, GP2-positive cells (black portions shown by an arrow in Fig. 4) were observed on the intestinal mucosa in the test group, which was sensitized with the antigens about

CLAIMS

1. A mucosal immunostimulator comprising, as an active ingredient, at least one selected from the group consisting of saturated fatty acids represented by the following formula (1) and salts thereof:

R-COOH (1)

wherein, in the formula (1), R represents a heptyl group, an octyl group, a nonyl group or a decyl group substituted with one hydroxy group.

2. The mucosal immunostimulator according to claim 1, wherein R is a nonyl group substituted with one hydroxy group.

3. The mucosal immunostimulator according to claim 1, wherein the saturated fatty acids are 3-hydroxydecanoic acid and 10-hydroxydecanoic acid.

4. The mucosal immunostimulator according to claim 1, wherein the saturated fatty acid is 10-hydroxydecanoic acid.

5. The mucosal immunostimulator according to any one of claims 1 to 4, wherein the mucosal immunostimulator is based on induction of differentiation of M cells.

6. A food composition for mucosal immunostimulation, comprising the mucosal immunostimulator according to any one of claims 1 to 5.

7. An adjuvant comprising the mucosal immunostimulator according to any one of claims 1 to 5.

8. A vaccine preparation comprising the adjuvant according to claim 7.