## Cholera Vaccine

コレラワクチン

Cholera Vaccine is a liquid for injection containing inactivated *Vibrio cholerae* of the Ogawa and Inaba strains.

Monotypic products may be manufactured, if necessary.

It conforms to the requirements of Cholera Vaccine in the Minimum Requirements for Biological Products.

**Description** Cholera Vaccine is a white-turbid liquid.

## **Cholesterol**

コレステロール

C<sub>27</sub>H<sub>46</sub>O: 386.65

Cholest-5-en-3 $\beta$ -ol [57-88-5]

**Description** Cholesterol occurs as white to pale yellow crystals or granules. It is odorless, or has a slight odor. It is tasteless.

It is freely soluble in chloroform and in diethyl ether, soluble in 1,4-dioxane, sparingly soluble in ethanol (99.5), and practically insoluble in water.

It gradually changes to a yellow to light yellow-brown color by light.

**Identification** (1) Dissolve 0.01 g of Cholesterol in 1 mL of chloroform, add 1 mL of sulfuric acid, and shake: a red color develops in the chloroform layer, and the sulfuric acid layer shows a green fluorescence.

(2) Dissolve 5 mg of Cholesterol in 2 mL of chloroform, add 1 mL of acetic anhydride and 1 drop of sulfuric acid, and shake: a red color is produced, and it changes to green through blue.

**Optical rotation**  $[\alpha]_D^{25}$ :  $-34 - -38^\circ$  (after drying, 0.2 g, 1,4-dioxane, 10 mL, 100 mm).

Melting point 147 – 150°C

**Purity** (1) Clarity of solution—Place 0.5 g of Cholesterol in a glass-stoppered flask, dissolve in 50 mL of warm ethanol (95), and allow to stand at room temperature for 2 hours: no turbidity or deposit is produced.

(2) Acid—Place 1.0 g of Cholesterol in a flask, dissolve in 10 mL of diethyl ether, add 10.0 mL of 0.1 mol/L sodium hydroxide VS, and shake for 1 minute. Expel the diethyl ether, and boil for 5 minutes. Cool, add 10 mL of water, and titrate with 0.05 mol/L sulfuric acid VS (indicator: 2 drops

of phenolphthalein TS). Perform a blank determination.

The volume of 0.1 mol/L sodium hydroxide VS consumed is not more than 0.30 mL.

**Loss on drying** Not more than 0.30% (1 g, in vacuum, 60°C, 4 hours).

Residue on ignition Not more than 0.10% (1 g).

**Containers and storage** Containers—Tight containers. Storage—Light-resistant.

## Cimicifuga Rhizome

Cimicifugae Rhizoma

ショウマ

Cimicifuga Rhizome is the rhizome of Cimicifuga simplex Wormskjord, Cimicifuga dahurica (Turcz.) Maximmowicz, Cimicifuga foetida Linné or Cimicifuga heracleifolia Komarov (Ranunculaceae).

**Description** Knotted, irregularly shaped rhizome, 6-18 cm in length, 1-2.5 cm in diameter; externally dark brown to blackish brown, with many remains of roots, often with scars of terrestrial stems; the center of the scar dented, and the circumference being pale in color and showing a radial pattern; fractured surface fibrous; pith dark brown in color and often hollow; light and hard in texture. Almost odorless; taste, bitter and slightly astringent.

**Purity** Rhizome of *Astilbe thunbergii* Miquel—Under a microscope, powdered Cimicifuga Rhizome does not contain crystal druses in the parenchyma.

Total ash Not more than 9.0%.

Acid-insoluble ash Not more than 1.5%.

Extract content Dilute ethanol-soluble extract: not less than 18.0%.

## **Cinnamon Bark**

Cinnamomi Cortex

ケイヒ

Cinnamon Bark is the bark of the trunk of Cinnamomum cassia Blume (Lauraceae), or such bark from which a part of the periderm has been removed.

**Description** Usually semi-tubular or tubularly rolled pieces of bark, 0.1-0.5 cm in thickness, 5-50 cm in length, 1.5-5 cm in diameter; the outer surface dark red-brown, and the inner surface red-brown and smooth; brittle; the fractured surface is slightly fibrous, red-brown, exhibiting a light brown, thin layer. Characteristic aroma; taste, sweet and pungent at first, later rather mucilaginous and slightly astringent.

Under a microscope, a transverse section of Cinnamon Bark reveals a primary cortex and a secondary cortex divided