Ivermectin B$_{1a}$
Item No. 18768

CAS Registry No.: 71827-03-7
Formal Name: 5-O-demethyl-22,23-dihydro-avermectin A$_{1a}$
Synonym: 22,23-dihydro Avermectin B$_{1a}$
MF: C$_{48}$H$_{74}$O$_{14}$
FW: 875.1
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ivermectin B$_{1a}$ is supplied as a solid. A stock solution may be made by dissolving the ivermectin B$_{1a}$ in the solvent of choice, which should be purged with an inert gas. Ivermectin B$_{1a}$ is soluble in the organic solvent DMSO.

Description

Ivermectin B$_{1a}$ is the main component (>80%) of the anthelmintic ivermectin, which also contains ivermectin B$_{1b}$ (<20%; Item No. 23824). It produces antiparasitic activity by binding to glutamate-gated chloride channels expressed on nematode neurons and pharyngeal muscle cells, inducing irreversible channel opening and very long-lasting hyperpolarization/depolarization of the neuron/muscle cell, thereby blocking further function (EC$_{50}$ = 104 nM). Formulations containing ivermectin inhibit replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Vero/hSLAM cells.

References