



LKT Laboratories, Inc.

## S-(+)-Methoprene

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### Product Information

Product ID M1978

CAS No. 65733-16-6

#### Chemical Name

Synonym Altosid, Apex, Diacan, Dianex, Kabat, Minex, Pharorid, Precor, ZR-515

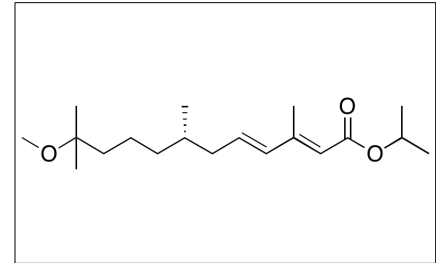
Formula  $C_{19}H_{34}O_3$

Formula Wt. 310.47

#### Melting Point

Purity  $\geq 95\%$

Solubility



**Bulk quantities available upon request**

Product ID	Size
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M1978	25 mg
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M1978	100 mg
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Store Temp Ambient

Ship Temp Ambient

**Description** Methoprene is a juvenile growth hormone analog that acts as a growth regulator in insects; it prohibits the ability of the insect to change from pupae to adult (which requires the absence of juvenile growth hormones). This compound is used to control mosquito populations and to inhibit the spread of malaria and dengue fever. Methoprene interacts with cell membranes and alters cell bioenergetics, including  $Ca^{2+}$  signaling and redox activity of cytochrome oxidase. Methoprene also induces male sex differentiation in crustacean oocytes, resulting in production of all male offspring.

**References** Monteiro JP, Jurado AS, Moreno AJ, et al. Toxicity of methoprene as assessed by the use of a model microorganism. *Toxicol In Vitro*. 2005 Oct;19(7):951-6. PMID: 16081242.

Olmstead AW, LeBlanc GA. Insecticidal juvenile hormone analogs stimulate the production of male offspring in the crustacean *Daphnia magna*. *Environ Health Perspect*. 2003 Jun;111(7):919-24. PMID: 12782492.

Wright JE. Environmental and toxicological aspects of insect growth regulators. *Environ Health Perspect*. 1976 Apr;14:127-32. PMID: 789059.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.