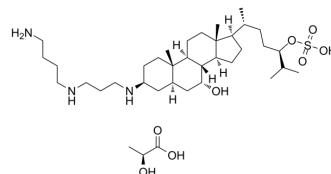


## Squalamine lactate

<b>Cat. No.:</b>	HY-16467
<b>CAS No.:</b>	320725-47-1
<b>Molecular Formula:</b>	C <sub>37</sub> H <sub>71</sub> N <sub>3</sub> O <sub>8</sub> S
<b>Molecular Weight:</b>	718.04
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 36.66 mg/mL (51.06 mM)  
\* "≥" means soluble, but saturation unknown.

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.3927 mL	6.9634 mL	13.9268 mL
	5 mM	0.2785 mL	1.3927 mL	2.7854 mL
	10 mM	0.1393 mL	0.6963 mL	1.3927 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Squalamine lactate is an aminosterol compound discovered in the tissues of the dogfish shark, with antimicrobial activity, and used for the treatment of neovascular age-related macular degeneration.

#### In Vitro

Squalamine lactate has a more generalized effect on the cellular signaling cascade that is common to both VEGF and other growth factors<sup>[1]</sup>. Squalamine blocks the action of VEGF and integrin expression, thereby inhibiting angiogenesis, when bound to calmodulin<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Squalamine is ineffective when administered intravitreally and therefore requires intravenous dosing. However, systemic dosing has yielded promising results in rats as well as humans<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. Hussain RM, et al. Emerging vascular endothelial growth factor antagonists to treat neovascular age-related macular degeneration. Expert Opin Emerg Drugs. 2017 Sep;22(3):235-246.

[2]. Emerson MV, et al. Current and emerging therapies for the treatment of age-related macular degeneration. Clin Ophthalmol. 2008 Jun;2(2):377-88.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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