

Data Sheet (Cat.No.T15502)

HQ-415

Chemical Properties

CAS No.:	430462-93-4
Formula:	C ₂₅ H ₂₅ N ₃ O ₃
Molecular Weight:	415.48
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	HQ-415 is a class of clinically relevant bioactive metal chelators related to clioquinol. The effective concentration eliciting an EC ₅₀ for HQ-415 is 15 µM.
Targets(IC ₅₀)	Others: None
In vitro	HQ-415 is active in the TDP-43 model, but CQ was not HQ-161 and HQ-415 is retested in the dose for their ability to rescue TDP-43. HQ-415 strongly synergizes with CQ at multiple concentrations in cells expressing α-syn. CQ fails to synergize with HQ-161 and actually antagonizes HQ-161 rescuing activity, in TDP-43-expressing cells. In contrast, despite the fact that CQ was completely inactive against TDP-43, it strongly synergized with HQ-415, decreasing the EC ₅₀ from 16 to 5 µM. Both HQ-161 and HQ-415 rescue TDP-43 toxicity. In cells expressing α-syn, HQ-161, despite being inactive on its own, synergized with HQ-415, reducing the EC ₅₀ from 21 to 14 µM.

Solubility Information

Solubility	DMSO: 5.6 mg/mL (13.48 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.407 mL	12.034 mL	24.069 mL
5 mM	0.481 mL	2.407 mL	4.814 mL
10 mM	0.241 mL	1.203 mL	2.407 mL
50 mM	0.048 mL	0.241 mL	0.481 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Tardiff DF, et al. Different 8-hydroxyquinolines protect models of TDP-43 protein, α-synuclein, and polyglutamine proteotoxicity through distinct mechanisms. *J Biol Chem.* 2012 Feb 3;287(6):4107-4120.

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