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## Product Data Sheet

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Product Name: HQ-415  
Cat. No.: GC30970

### Chemical Properties

Cas. No. 430462-93-4

SMILES OC1=C2N=CC=CC2=CC=C1C(C3=CC=C(OC)C(OCC)=C3)NC4=NC=CC(C)=C4

Formula  $C_{25}H_{25}N_3O_3$  M.Wt 415.48

Solubility DMSO : 5.6 mg/mL (13.48 mM) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

HQ-415 is a class of clinically relevant bioactive metal chelators related to clioquinol. The effective concentration eliciting a EC50 for HQ-415 is 15  $\mu$ M. IC50 value: 15  $\mu$ M (EC50) in vitro: In TDP-43-expressing cells, CQ fails to synergize with HQ-161 and actually antagonizes HQ-161 rescuing activity. In contrast, despite the fact that CQ was completely inactive against TDP-43, it strongly synergized with HQ-415, decreasing the EC50 from 16 to 5  $\mu$ M. HQ-415 is active in the TDP-43 model, but CQ was not HQ-161 and HQ-415 are retested in dose for their ability to rescue TDP-43. Both HQ-161 and HQ-415 rescue TDP-43 toxicity. In cells expressing  $\alpha$ -syn, HQ-161, despite being inactive on its own, synergized with HQ-415, reducing the EC50 from 21 to 14  $\mu$ M. HQ-415 strongly synergizes with CQ at multiple concentrations in cells expressing  $\alpha$ -syn.

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

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

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