

Product Data Sheet

Product Name: IQM-266
Cat. No.: GC79539

Chemical Properties

Cas. No. 1956337-58-8

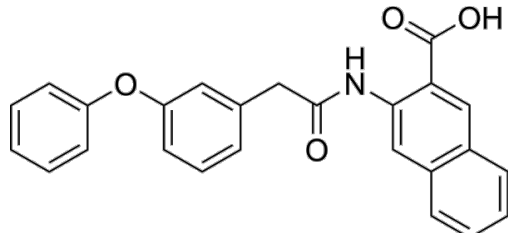
Formula $C_{25}H_{19}NO_4$ M.Wt 397.42

Solubility DMSO: 100 mg/mL (251.62 mM; Need ultrasonic) 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

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

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IQM-266 is a Downstream Regulatory Element Antagonist Modulator (DREAM) ligand with a K_D of 4.63 μM . IQM-266 inhibits the $K_{V4.3}$ /DREAM current in a concentration-, voltage-, and time-dependent-manner. IQM-266 also modulates A-type outward potassium currents (IA) from rat dorsal root ganglia (DRG) neurons. IQM-266 can be used for neurological disease research, such as Alzheimer's disease and Huntington's disease (HD) [1].

In Vitro, IQM-266 (0-100 μM) concentration-dependently inhibits $K_{V4.3}$ /DREAM channels ($IC_{50} = 8.6$ μM) in CHO cells by slowing their activation and inactivation kinetics[1]. IQM-266 (0-100 μM) inhibits the maximum peak current and, to a lesser extent, the charge crossing the cell membrane during depolarization at ≥ 10 μM in CHO cells[1]. IQM-266 (3 μM) increases the charge through the cell membrane during the application of depolarizing pulses, and inhibits peak $K_{V4.3}$ /DREAM current amplitude while slowing its inactivation in CHO cells[1]. IQM-266 (3-10 μM) slows the recovery process and increases closed-state inactivation of $K_{V4.3}$ /DREAM channels in a concentration-dependent manner in CHO cells through its specific interaction with DREAM, which also underlies the observed increase in transmembrane charge[1]. IQM-266 (3-10 μM) dose-dependently reduces the peak amplitude of IA in rat DRG neurons[1].

References:

[1]. Peraza DA, et al. Identification of IQM-266, a Novel DREAM Ligand That Modulates K_{V4} Currents. Front Mol Neurosci. 2019 Feb 4;12:11.

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