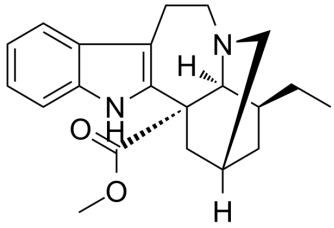
Coronaridine

Cat. No.:	HY-121118
CAS No.:	467-77-6
Molecular Formula:	$C_{21}H_{26}N_2O_2$
Molecular Weight:	338.44
Target:	Wnt
Pathway:	Stem Cell/Wnt
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description	Coronaridine, an iboga type alkaloid, inhibits the wnt signaling pathway by decreasing β-catenin expression[1].
In Vitro	Coronaridine (0-40 μM; 24 hours) is against non-cancer cells with IC_{50} values >40 μM. It agaisnt wnt-dependent cells with IC_{50} values of 10.4, 11.6 and 24.4 μM for SW480, HCT116 and DLD1cells, respectively[1]. Coronaridine (0-40 μM; 24 hours) inhibits β-catenin expression, but the protein levels of p-β--catenin at Ser33, Ser37, and Thr41 and p-β-catenin at Ser 45 [p-b-catenin (S45)] are unchanged[1]. In whole-cell patch clamp recordings,Catharanthine (1-300 μM) are respectively co-applied with GABA at concentrations corresponding to the EC_{30} value for each receptor subtype. Both congeners potentiated different GABAARs in a concentration-dependent manner[2]. At higher concentrations, however, Catharanthine starts to inhibit GABA-activated currents due to the reduced amplitude and rebound current, where the threshold concentration depended on the receptor subtype (e.g., > 30 μM for hα1β2; > 100 μM for hα1β2γ2 and hα2β2γ2). The PAM activity of Catharanthine's are depended on the receptor subtype: hα1β2 (4.6±0.8 μM), >hα2β2γ2 (12.6±3.8 μM), hα1β2γ2 (14.4 ± 4.6 μM)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Brain Behav. 2022 Jul 18;e2684.

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REFERENCES

[1]. Kensuke Ohishi, et al. Coronaridine, an iboga type alkaloid from Tabernaemontana divaricata, inhibits the Wnt signaling pathway by decreasing β-catenin mRNA expression. Bioorg Med Chem Lett. 2015 Sep 15;25(18):3937-40.

[2]. Hugo R Arias, et al. Coronaridine congeners potentiate GABA A receptors and induce sedative activity in mice in a benzodiazepine-insensitive manner. Prog Neuropsychopharmacol Biol Psychiatry. 2020 Jul 13;101:109930

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

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