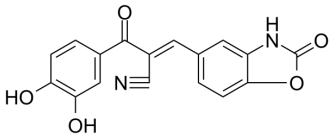
AGL-2263

Cat. No.:	HY-112720
CAS No.:	638213-98-6
Molecular Formula:	$C_{17}H_{10}N_2O_5$
Molecular Weight:	322.27
Target:	Insulin Receptor
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (310.30 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1030 mL	15.5149 mL	31.0299 mL
	5 mM	0.6206 mL	3.1030 mL	6.2060 mL
	10 mM	0.3103 mL	1.5515 mL	3.1030 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (6.45 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AGL-2263 is an insulin receptor and insulin-like growth factor (IGF) receptor inhibitor[1][2].

IC_{50} & Target

Insulin receptor[1].

In Vitro

AGL-2263 (5 μM, for 1 h followed by insulin treatment for 24 h) inhibits IR and insulin could still induce phosphorylation of AKT and ERK1/2 after the IR inhibition[3].

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

Western Blot Analysis[3]

Cell Line:	Granulosa cells.
Concentration:	5 μM.
Incubation Time:	For 1 h followed by insulin treatment for 24 h.
Result:	Insulin still induced phosphorylation of AKT and ERK1/2 after IR was inhibited by AGL2263.

CUSTOMER VALIDATION

- Reprod Biol. 2019 Sep;19(3):293-298.

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REFERENCES

[1]. Li Y, et al. GDM-associated insulin deficiency hinders the dissociation of SERT from ERp44 and down-regulates placental 5-HT uptake. Proc Natl Acad Sci U S A. 2014 Dec 30;111(52):E5697-705.

[2]. Hua Zhang, et al. Somatic cells initiate primordial follicle activation and govern the development of dormant oocytes in mice. Curr Biol. 2014 Nov 3;24(21):2501-8.

[3]. Ying Han, et al. Insulin mitigates apoptosis of porcine follicular granulosa cells by downregulating BimEL. Reprod Biol. 2019 Sep;19(3):293-298.

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