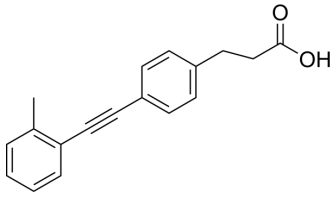
TUG-424

Cat. No.:	HY-14363
CAS No.:	1082058-99-8
Molecular Formula:	$C_{18}H_{16}O_2$
Molecular Weight:	264.32
Target:	Free Fatty Acid Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	TUG-424 is a potent and selective free fatty acid receptor 1 (FFA1/GPR40) agonist with an EC_{50} of 32 nM. TUG-424 significantly increases glucose-stimulated insulin secretion at 100 nM. TUG-424 may serve to explore the role of FFA1 in metabolic diseases such as diabetes or obesity[1]. TUG-424 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.
IC_{50} & Target	EC50: 32 nM (FFA1/GPR40)[1]
In Vitro	Increasing concentrations (100 nM to 10 μM) of TUG-424 enhances glucose-stimulated insulin secretion significantly already at 100 nM and with a maximal effect at 3 μM. The approximately 2-fold stimulation of secretion by TUG-424 in the presence of 12 mM glucose is comparable to that induced by palmitate in the presence of the same glucose concentration. Basal insulin secretion at 2.8 mM glucose is slightly but significantly reduces by TUG-424[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Discovery of Potent and Selective Agonists for the Free Fatty Acid Receptor 1 (FFA1/GPR40), a Potential Target for the Treatment of Type II DiabetesJ. Med. Chem., 2008, 51 (22), pp 7061-7064

[2]. Christiansen E, et al. Discovery of potent and selective agonists for the free fatty acid receptor 1 (FFA(1)/GPR40), a potential target for the treatment of type II diabetes. J Med Chem. 2008 Nov 27;51(22):7061-4.

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