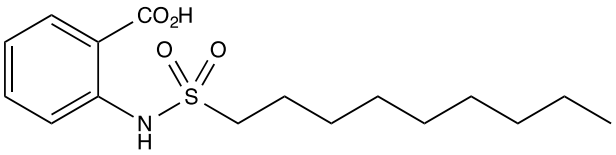
Catalog # 10-4577

FSG67

2-(Nonylsulfonamido)benzoic acid

1158383-34-6

Lot # FBA7071



FSG67 is an inhibitor of Glycerol 3-Phosphate Acyltransferase (GPAT); IC_{50} = 24 µM.[1] It was able to reduce food intake, decrease body weight and adiposity, enhance energy utilization as fatty acid oxidation, reverse hepatic steatosis, and enhance insulin sensitivity in diet-induced obese mice while showing no *in vitro* or *in vivo* toxicity.[2] FSG67 also caused decreased gene expression for orexigenic hypothalamic neuropeptides AgRP and NPY.[2] FSG67 increased FAOx in primary hypothalamic neurons (PHN) leading to an increase in ATP and inactivation of AMPK. Oxidative stress and indicators of ER stress were also reduced in PHN.[3]

1) Wydysh *et al*. (2009), *Design and Synthesis of Small Molecule Glycerol 3-Phosphate Acyltransferase Inhibitors*; J.Med.Chem. **52** 3317

2) Kuhajda *et al*. (2011), *Pharmacological glycerol-3-phosphate acyltransferase inhibition decreases food intake and adiposity and increases insulin sensitivity*; Am.J.Physiol.Regul.Integr.Comp.Physiol. **301** R116

3) McFadden *et al*. (2014), *Increasing Fatty Acid Oxidation Remodels the Hypothalamic Neurometabolome to Mitigate Stress and Inflammation*; PLoS ONE **9** e115642

PHYSICAL DATA

Molecular Weight:	327.44
Molecular Formula:	$C_{16}H_{25}NO_4S$
Purity:	>98% TLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml); ethanol (>25 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO and ethanol may be stored at -20°C for up to 3 months.

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