



<b>Catalog Number:</b>	MC11005	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	Mitochondrial oxidative phosphorylation inhibitor	<b>CAS #:</b>	210302-17-3
<b>Research Categories:</b>	Neuroscience, cell death, stem cells	<b>Chemical Name:</b>	N5,N6-bis(2-Fluorophenyl)-[1,2,5]oxadiazolo[3,4-b]pyrazine-5,6-diamine
<b>Solubility:</b>	Soluble in DMSO (up to at least 35 mg/ml)	<b>Molecular Formula:</b>	C16H10F2N6O
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	340.3
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-20°C		

### Application Notes

#### Description/Data:

BAM15 is a mitochondrial protonophore uncoupler with fewer off-target effects (EC50 = 270 nM in L6 myoblast mitochondria) (1,2). BAM15 leads to a higher maximum rate of mitochondrial respiration in relation to FCCP, another uncoupler of equal potency, and it doesn't depolarize the plasma membrane (2). It also has been shown to stimulate energy expenditure, guard against obesity and enhance glycemic control in rodent models (3). In mice, BAM15 has demonstrated the ability to reverse diet-induced obesity and insulin resistance (4). Another study showed that it decreases transportation-induced apoptosis in iPS-differentiated retinal tissue (5).

#### References:

- 1) BM Kenwood et al. *Bioorg. Med. Chem. Lett.* 2015 25:4858
- 2) BM Kenwood et al. *Mol. Metab.* 2013 3:114
- 3) CL Axelrod et al. *EMBO Mol. Med.* 2020 Jun10:e12088
- 4) SJ Alexopoulos et al. *Nat. Commun.* 2020 11:2397
- 5) M Tang et al. *Stem Cell Res. Ther.* 2019 10:64

### FOR RESEARCH USE ONLY

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