

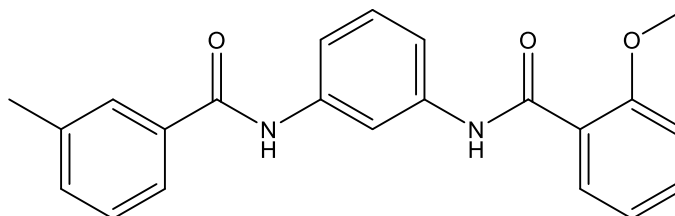
**Catalog # 10-4658**

**ML365**

CAS# 947914-18-3

2-Methoxy-N-[3-[(3-methylbenzoyl)amino]phenyl]benzamide

Lot # FBS3080



ML365 is a potent ( $IC_{50} = 16$  nM) and selective (62-fold selective over TASK-3) blocker of the two-pore domain potassium channel  $K_{2P3.1}$  (TASK-1).<sup>1</sup> It also less potently ( $IC_{50} = 4.07$   $\mu$ M) blocks the  $K_{2P6.1}$  (TWIK-2) channel resulting in blocking the ATP-induced NLRP3 inflammasome.<sup>2</sup> ML365 improved the efficacy of Levetiracetam in chronically epileptic rats.<sup>3</sup> It suppressed the release of TNF- $\alpha$ , IL-6, and IL-1 $\beta$  in an LPS-induced inflammatory model *via* regulation of NF- $\kappa$ B signaling.<sup>4</sup>

- 1) Flaherty *et al.* (2014), *Potent and selective inhibitors of the TASK-1 potassium channel through chemical optimization of a bis-amide scaffold*; Bioorg. Med. Chem. Lett. **24** 3968
- 2) Wu *et al.* (2022), *ML365 inhibits TWIK2 channel to block ATP-induced NLRP3 inflammasome*; Acta Pharmacol. Sin. **43** 992
- 3) Kim and Kang (2022), *Blockade of TASK-1 Channel Improves the Efficacy of Levetiracetam in Chronically Epileptic Rats*; Biomedicines **10** 787
- 4) Liu *et al.* (2022), *ML365 inhibits liposaccharide-induced inflammatory responses via NF- $\kappa$ B signaling pathway*; Immunobiology **227** 152208

**PHYSICAL DATA**

Molecular Weight:	360.41
Molecular Formula:	C <sub>22</sub> H <sub>20</sub> N <sub>2</sub> O <sub>3</sub>
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**