

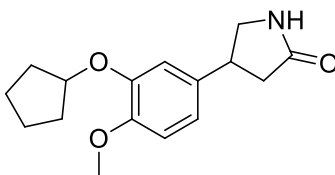
**Catalog # 10-1079**

**Rolipram**

CAS# 61413-54-5

4-[3-(Cyclopentyloxy)-4-methoxyphenyl]-2-pyrrolidinone (racemic)  
ZK 62711

Lot # X102103



Selective inhibitor of cAMP-specific phosphodiesterase (PDE4), IC<sub>50</sub> = 1 μM. Displays beneficial effects in neurodegenerative diseases. Displays anti-inflammatory activity and synergizes with forskolin. Cell permeable.

- 1) Reeves *et al.* (1987), *The identification of a new cyclic nucleotide phosphodiesterase activity in human and guinea-pig cardiac ventricle. Implications for the mechanism of action of selective phosphodiesterase*; *Biochem. J.*, **241** 535
- 2) Nishi *et al.* (2008), *Distinct Roles of PDE4 and PDE10A in the Regulation of cAMP/PKA Signaling in the Striatum*; *J. Neurosci.*, **28** 10460
- 3) Christiansen *et al.* (2011), *Combined anti-inflammatory effects of β2-adrenergic agonists and PDE4 inhibitors on astrocytes by upregulation of intracellular cAMP*; *Neurochem. Int.*, **59** 837
- 4) Myeku *et al.* (2016); *Tau-driven 26S proteasome impairment and cognitive dysfunction can be prevented early in disease by activating cAMP-PKA signaling*; *Nature Medicine* **22** 46

**PHYSICAL DATA**

Molecular Weight:	275.35
Molecular Formula:	C <sub>16</sub> H <sub>21</sub> NO <sub>3</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml with warming), or ethanol (up to 25 mg/ml with warming)
Physical Description:	White or off-white solid
Storage and Stability:	Store as supplied at room temperature for up to 2 years from the date of purchase. Protect from exposure to moisture. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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