

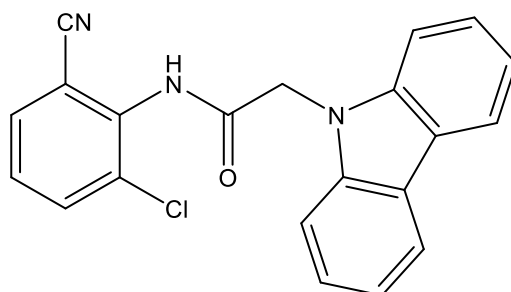
**Catalog # 10-3911**

**KL044**

CAS# 1801856-93-8

2-Carbazol-9-yl-N-(2-chloro-6-cyanophenyl)acetamide

Lot # FBA8178



KL044 is a potent stabilizer of the circadian clock protein cryptochrome (CRY).<sup>1</sup> It lengthened the circadian period and repressed *Per2* activity in reporter assays with 10-fold more potency than KL001 (Cat# 10-1411). KL044 inhibited melanogenesis and melanosome transport *via* suppression of the cAMP/PKA/CREB pathway.<sup>2</sup>

- 1) Lee *et al.* (2015), *Development of Small-Molecule Cryptochrome Stabilizer Derivatives as Modulators of the Circadian Clock*; ChemMedChem. **10** 1489
- 2) Gao *et al.* (2023), *Cryptochrome 1 activation inhibits melanogenesis and melanosome transport through negative regulation of cAMP/PKA/CREB signaling pathway*; Front. Pharmacol. **14** 1081030

**PHYSICAL DATA**

Molecular Weight:	359.81
Molecular Formula:	C <sub>21</sub> H <sub>14</sub> ClN <sub>3</sub> O
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.

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