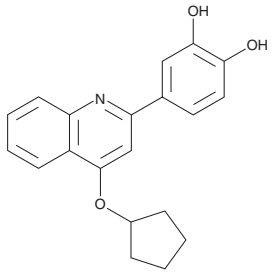
PRODUCT INFORMATION

CMS121

Item No. 27085

CAS Registry No.:	1353224-53-9
Formal Name:	4-[4-(cyclopentyloxy)-2-quinolinyl]-1,2-benzenediol
MF:	$C_{20}H_{19}NO_3$
FW:	321.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 223, 276 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CMS121 is supplied as a crystalline solid. A stock solution may be made by dissolving the CMS121 in the solvent of choice. CMS121 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of CMS121 in these solvents is approximately 20 and 30 mg/ml, respectively.

Description

CMS121 is a substituted quinoline that has neuroprotective, anti-inflammatory, antioxidative, and renoprotective activities.[1-3] It maintains glutathione (GSH) levels in HT22 mouse hippocampal cells *in vitro* in the presence of glutamate, induces differentiation of PC12 cells, prevents LPS-induced N9 microglial activation by 82% in N9 microglia, and scavenges free radicals in a Trolox equivalent activity concentration (TEAC) assay.[1] CMS121 protects against ischemia and oxytosis in phenotypic screens in HT22 cells *in vitro* with EC_{50} values of 7 and 200 nM for preventing iodoacetic acid- or glutamate-induced cell death, respectively.[2] It is also renoprotective, decreasing kidney weight loss and decreasing the expression of TNF-α, caspase-1, and inducible nitric oxide synthase (iNOS) in a SAMP8 mouse model of chronic kidney disease associated with rapid aging when administered at a dose of 10 mg/kg per day starting at nine months of age.[3]

References

1. Chiruta, C., Schubert, D., Dargusch, R., *et al.* Chemical modification of the multi-target neuroprotective compound fisetin. *J. Med. Chem.* **55(1),** 378-389 (2012).
2. Prior, M., Chiruta, C., Currais, A., *et al.* Back to the future with phenotypic screening. *ACS Chem Neurosci.* **5(7),** 503-513 (2014).
3. Currais, A., Maher, P., Schubert, D., *et al.* Prevention and treatment of aging and neurodegenerative diseases. *Salk Institute for Biological Studies.* **WO 2017/015660 Al** (2017).

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