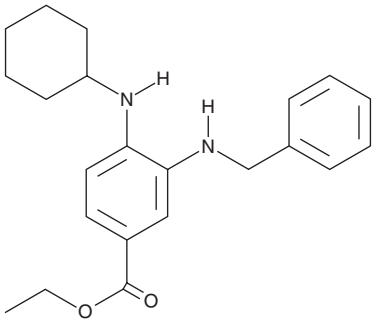
PRODUCT INFORMATION

SRS11-92

Item No. 25689

CAS Registry No.:	1467047-25-1
Formal Name:	4-(cyclohexylamino)-3-[(phenylmethyl)amino]-benzoic acid, ethyl ester
Synonym:	AA9
MF:	$C_{22}H_{28}N_2O_2$
FW:	352.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 250, 298, 323 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

SRS11-92 is supplied as a crystalline solid. A stock solution may be made by dissolving the SRS11-92 in the solvent of choice. SRS11-92 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SRS11-92 in ethanol and DMSO is approximately 10 mg/ml and approximately 30 mg/ml in DMF.

SRS11-92 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SRS11-92 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SRS11-92 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SRS11-92 is a ferroptosis inhibitor and a derivative of ferrostatin-1 (Item No. 17729).[1] It inhibits ferroptotic cell death induced by erastin (Item No. 17754) in HT-1080 human fibrosarcoma cells (EC_{50} = 6 nM). SRS11-92 (2 µM) inhibits iron-induced cell death in isolated mouse kidney proximal tubules, and fully protects rat oligodendrocytes from cystine deprivation-induced cell death in an *in vitro* model of periventricular leukomalacia when used at a concentration of 100 nM. It also increases survival of medium spiny neurons in rat corticostriatal brain slices in an *in vitro* model of Huntington's disease in a concentration-dependent manner. SRS11-92 (3 µM) increases production of reactive oxygen species (ROS) in *L. major* promastigotes in a time-dependent manner.[2] It is selectively toxic to *L. major* promastigotes (LD_{50} = 3.34 µM) over U2OS human osteoblasts, RAW 264.7 macrophages, and intraperitoneal macrophages when used at a concentration of 80 µM.

References

1. Skouta, R., Dixon, S.J., Wang, J., *et al.* Ferrostatins inhibit oxidative lipid damage and cell death in diverse disease models. *J. Am. Chem. Soc.* **136(12)**, 4551-4556 (2014).
2. Iniguez, E.A., Perez, A., Maldonado, R.A., *et al.* Novel arylalkylamine compounds exhibits potent selective antiparasitic activity against *Leishmania major. Bioorg. Med. Chem. Lett.* **25(22)**, 5315-5320 (2015).

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