Catalog # 10-2883

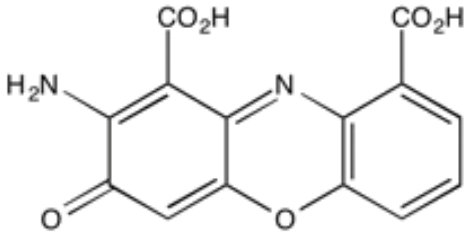
Cinnabarinic acid

CAS# 606-59-7

2-amino-3-oxo-3H-phenoxazine-1,9-dicarboxylic acid

Cinnabaric acid

Lot # S102120



A novel endogenous tryptophan metabolite which acts as an aryl hydrocarbon receptor (AHR) agonist.[1] It drives IL-22 production by stimulating the differentiation of human and mouse T cells producing IL-22.[1] Induces apoptosis in thymocytes.[2] Activates type 4 metabotropic glutamate receptors.[3] Counteracts excitotoxic neuronal cell death induced by NMDA in mixed cultures of cortical cells. Displays neuroprotective activity.[3]

1) Lowe *et al*. (2014), *Identification of cinnabarinic acid as a novel endogenous aryl hydrocarbon receptor ligand that drives IL-22 production;* PLoS One, **9(2)** e87877
2) Hiramatsu *et al*. (2008), *Cinnabarinic acid generated from 3-hydroxyanthranilic acid strongly induces apoptosis in thymocytes through the generation of reactive oxygen species and the induction of caspase*; J. Cell. Biochem. **103** 42
3) Fazio *et al*. (2012), *Cinnabarinic acid, an endogenous metabolite of the kynurenine pathway, activates type 4 metabotropic glutamate receptors*; Mol. Pharmacol. **81** 643

PHYSICAL DATA

Molecular Weight:	300.22
Molecular Formula:	$C_{14}H_8N_2O_6$
Purity:	85% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 30 mg/ml), or DMF (up to 25 mg/ml)
Physical Description:	Red solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or DMF may be stored at -20°C for up to 1 month.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

www.focusbiomolecules.com