NEUROMICS

Erastin Data Sheet

Catalog Number:	MC11118	**Product Type:**	Small Molecule
Bio-Activity:	Ferroptosis inducer	**CAS #:**	571203-78-6
Research Categories:	Cell death, cellular stress, cancer	**Chemical Name:**	2-[1-[4-[2-(4-Chlorophenyoxy)acetyl]-1-piperazinyl]ethyl]-3-(2-ethoxyphenyl)-4(3H)-quinazolinone
Solubility:	Soluble in DMSO (up to 10 mg/ml with warming).	**Molecular Formula:**	C30H31ClN4O4
Purity:	> 98%	**Molecular Weight:**	547.04
Format:	Powder	**Ship Temp:**	Ambient
Storage:	-20°C		

Application Notes

Description/Data:
Ferroptosis inducer [1]. Inhibits the cystine-glutamate antiporter, system Xc- leading to activation of an ER stress response [2]. Inhibition of system Xc- leads to cysteine starvation, glutathione depletion and induction of ferroptosis [3]. Also blocks mitochondrial voltage-dependent anion channels (specifically VDAC2 and 3) [4].

References:

1) Dolma et al. (2003), Identification of genotype-selective antitumor agents using synthetic lethal chemical screening in engineered human tumor cells; Cancer Cell, 3 285

2) Dixon et al. (2014), Pharmacological inhibition of cysteine-glutamate exchange induces endoplasmic reticulum stress and ferroptosis; Elife, 3 e02523

3) Sato et al. (2018), The ferroptosis inducer erastin irreversibly inhibits system xc-and synergizes with cisplatin to increase cisplatin's cytotoxicity in cancer cells; Sci. Rep., 8 968

4) Yagoda et al. (2007), RAS-RAF-MEK-dependent oxidative cell death involving voltage-dependent anion channels; Nature, 447 864

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