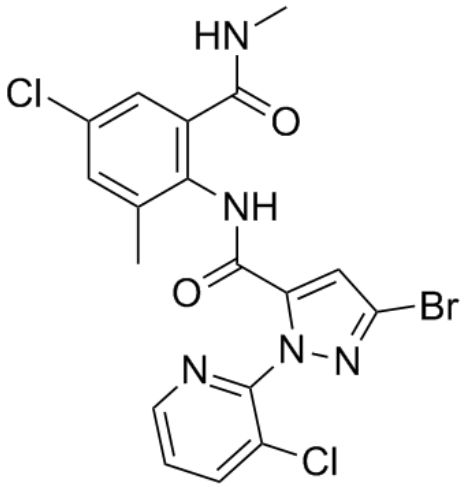
Product Data Sheet

Product Name: Chlorantraniliprole
Cat. No.: GC30656

Chemical Properties

Cas. No.	500008-45-7		
SMILES	O=C(C1=CC(Br)=NN1C2=NC=CC=C2Cl)NC3=C(C(NC)=O)C=C(Cl)C=C3C		
Formula	$C_{18}H_{14}BrCl_2N_5O_2$	M.Wt	483.15
Solubility	DMSO : ≥ 62.5 mg/mL (129.36 mM);Water : < 0.1 mg/mL (insoluble)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Chlorantraniliprole is an insecticide that potently and selectively activates insect ryanodine receptor, with EC50s of 40 nM and 50 nM for Drosophila melanogaster and H. virescens ryanodine receptor, and ~300-fold more potent than that in the mouse myoblast cell line, C2C12 (EC50, 14 μM).

Chlorantraniliprole is an insecticide that potently and selectively activates insect ryanodine receptor. Chlorantraniliprole actions by release of intracellular Ca2+ stores mediated by the ryanodine

receptor. Chlorantraniliprole is ~300-fold less potent against ryanodine receptor (RyRs) in the mouse myoblast cell line, C2C12 (EC50, 14 μM), than in insect RyRs from Drosophila melanogaster and H. virescens (EC50, 40 nM, 50 nM), and shows little selectivity at the rat cell line RyR2 (EC50, >100 μM)[1].

Chlorantraniliprole has low acute mammalian toxicity with an acute oral LD50 of >5000 mg/kg in rats, and little to no toxicity in 90-day studies, at dosing as high as 1500 mg/kg/day[1].

[1]. George P.Lahm, et al. Rynaxypyr: A new insecticidal anthranilic diamide that acts as a potent and selective ryanodine receptor activator. Bioorganic & Medicinal Chemistry Letters. 2007 Nov 15;17(22):6274-6279.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA