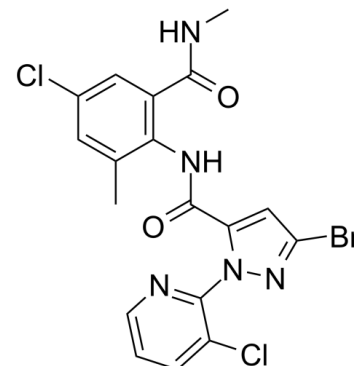


Data Sheet

Product Name:	Chlorantraniliprole
Cat. No.:	CS-0065743
CAS No.:	500008-45-7
Molecular Formula:	C ₁₈ H ₁₄ BrCl ₂ N ₅ O ₂
Molecular Weight:	483.15
Target:	Others
Pathway:	Others
Solubility:	H ₂ O : < 0.1 mg/mL (insoluble); DMSO : ≥ 62.5 mg/mL (129.36 mM)



BIOLOGICAL ACTIVITY:

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 1300-fold more potent than that in the mouse myoblast cell line, C2C12 (EC₅₀, 14 μM). IC₅₀ & Target: EC₅₀: 40 nM (*Drosophila melanogaster* Ryanodine receptor), 50 nM (*H. virescens* Ryanodine receptor), 14 μM (Ryanodine receptor, in C2C12 cells) **In Vitro**: 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 1300-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]. **In Vivo**: 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].

References:

[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.

CAIndexNames:

1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-

SMILES:

O=C(C1=CC(Br)=NN1C2=NC=CC=C2Cl)NC3=C(C(NC)=O)C=C(Cl)C=C3C

Caution: Product has not been fully validated for medical applications. For research use only.

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