

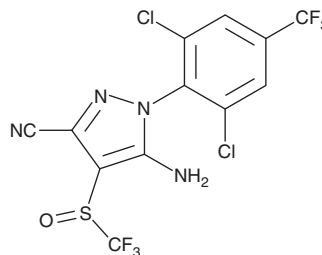
PRODUCT INFORMATION



Fipronil

Item No. 24128

CAS Registry No.: 120068-37-3
Formal Name: 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl)sulfinyl]-1H-pyrazole-3-carbonitrile
MF: C₁₂H₄Cl₂F₆N₄OS
FW: 437.1
Purity: ≥95%
Supplied as: A 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

Fipronil is supplied as a solid. A stock solution may be made by dissolving the fipronil in the solvent of choice, which should be purged with an inert gas. Fipronil is slightly soluble in DMSO and methanol.

Description

Fipronil is an insecticide that acts as a selective antagonist of insect GABA receptors (IC₅₀s = 28 and 1,660 nM for cockroach and rat receptors, respectively).¹ It also inhibits desensitizing and non-desensitizing glutamate-induced chloride currents in cockroach neurons (IC₅₀s = 800 and 10 nM, respectively). Fipronil induces activity of the cytochrome P450 (CYP) isoforms CYP1A1/2, CYP2B1/2, and CYP3A1/2 in isolated rat liver microsomes.² Formulations containing fipronil have been used as insecticides in veterinary care.

References

1. Narahashi, T., Zhao, X., Ikeda, T., *et al.* Glutamate-activated chloride channels: Unique fipronil targets present in insects but not in mammals. *Pestic. Biochem. Physiol.* **97(2)**, 149-152 (2010).
2. Caballero, M.V., Ares, I., Martínez, M., *et al.* Fipronil induces CYP isoforms in rats. *Food Chem. Toxicol.* **83**, 215-221 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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