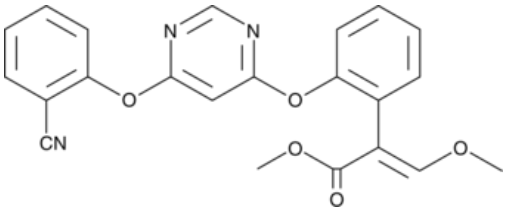
Product Data Sheet

Product Name: Azoxystrobin
Cat. No.: GC46904

Chemical Properties

Cas. No.	131860-33-8		
SMILES	CO/C=C(C(OC)=O)\C(C=CC=C1)=C1OC2=NC=NC(OC3=C(C#N)C=CC=C3)=C2		
Formula	C22H17N3O5	M.Wt	403.4
Solubility	DMSO : 100 mg/mL (247.90 mM; Need ultrasonic)	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

Azoxystrobin is a broad-spectrum β-methoxyacrylate fungicide (LC_{95}s = <1 mg/L for ascomycete, basidiomycete, deuteromycete, and oomycete plant pathogens).[1] It inhibits mitochondrial respiration by binding to the Q_o site of the cytochrome bc_1 complex and inhibiting electron transfer.[2] Azoxystrobin is cytotoxic to MDA-kb2 cells with an EC_{20} value of 2.9 µM but has no antiandrogenic activity.[3] It disrupts mRNA expression of antioxidant-, stress response-, and innate immune-related genes and induces the production of reactive oxygen species (ROS) in zebrafish larva when used at doses ranging from 0.1 to 100 µg/L.[4] Azoxystrobin inhibits proliferation of KYSE-150 human esophageal squamous cell carcinoma cells (IC_{50} = 2.42 µg/ml after 48 hours) and induces apoptosis in a time- and dose-dependent manner.[5] In a KYSE-150 nude mouse xenograft model, azoxystrobin reduces tumor growth when administered at a dose of 40 mg/kg per day.

Caution: Product has not been fully validated for medical applications. For research use only.
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1.Godwin, J.R., Anthony, V.M., Clough, J.M., et al.ICI A5504: A novel, broad spectrum, systemic β-methoxyacrylate fungicideBrit. Crop Prot. Conf. - Pests and Dis., Proc.1435-442(1992) 2.Wiggins, T.E., and Jager, B.J.Mode of action of the new methoxyacrylate antifungal agent ICIA5504Biochem. Soc. Trans.22(1)68S(1994) 3.Orton, F., Rosivatz, E., Scholze, M., et al.Widely used pesticides with previously unknown endocrine activity revealed as in vitro antiandrogensEnviron. Health Perspect.119(6)794-800(2011) 4.Jiang, J., Shi, Y., Yu, R., et al.Biological response of zebrafish after short-term exposure to azoxystrobinChemosphere20256-64(2018) 5.Shi, X.K., Bian, X.B., Huang, T., et al.Azoxystrobin induces apoptosis of human esophageal squamous cell carcinoma KYSE-150 cells through triggering of the mitochondrial pathwayFront. Pharmacol.8277(2017)