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产品名称: 腈菌唑
产品别名: Myclobutanil

生物活性:					
Description	Myclobutanil is a conazole class fungicide widely used as an agrichemical.				
In Vitro	Myclobutanil reduces cell viability to <50% at 100 ppm and to <10% at 500 ppm. Myclobutanil promotes a slight, but significant, increase in fatty acid (FA)-induced steatosis at doses from 1 to 100 ppm. Anti-apoptotic biomarkers are significantly reduced by Myclobutanil[1].				
Solvent&Solubility	In Vitro: DMSO : 103 mg/mL (356.67 mM; Need ultrasonic and warming)				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	3.4628 mL	17.3142 mL	34.6284 mL
		5 mM	0.6926 mL	3.4628 mL	6.9257 mL
		10 mM	0.3463 mL	1.7314 mL	3.4628 mL
	*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液, 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80℃, 6 months; -20℃, 1 month。 -80℃ 储存时, 请在 6 个月内使用, -20℃ 储存时, 请在 1 个月内使用。				
References	[1]. Stellavato A, et al. Myclobutanil worsens nonalcoholic fatty liver disease: An in vitro study of toxicity and apoptosis on HepG2 cells. Toxicol Lett. 2016 Nov 16;262:100-104.				
实验参考:					
Cell Assay	The hepatoma cell line HepG2 is used in this study. The cells are grown on tissue culture plates in an incubator with a humidified atmosphere (95% air/5% CO ₂ v/v) at 37℃. Steatosis is induced by incubating the hepatocytes with 6 mM of a 1:1 v/v mixture of oleic (18:1) and linoleic (18:2) fatty acids (Fas) for 24 h. After a wash with PBS, cells are exposed for an additional 24 h to Myclobutanil at 0.1, 1, 10, 100 or 500 ppm. Cytotoxicity is assessed in HepG2 cells (1.0×10 ⁵ cells/well in 24-well plates) by measuring the reduction of the tetrazolium dye 3-(4,5-dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H-tetrazolium (MTT)[1].				
Kinase Assay	To further evaluate apoptosis, cell extracts are collected after 24 h of exposure to Myclobutanil, centrifuged, and analyzed with a multiplex biometric ELISA-based immunoassay containing dyed microspheres conjugated to a monoclonal antibody specific for the target protein. Apoptosis biomarkers are BCL-xL/Bak dimer and Mcl-1/Bak dimer, quantified using RBM Apoptosis Panel 3. Each experiment is performed in triplicate and apoptosis biomarker levels determined using the Bio-Plex Array Reader. The analytic concentrations are calculated using a standard curve, according to the manufacturer's instructions[1].				
References	[1]. Stellavato A, et al. Myclobutanil worsens nonalcoholic fatty liver disease: An in vitro study of toxicity and apoptosis on HepG2 cells. Toxicol Lett. 2016 Nov 16;262:100-104.				