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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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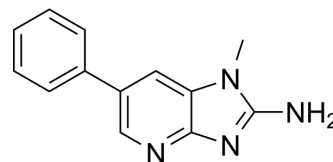
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PhIP

Cat. No.:	HY-118716		
CAS No.:	105650-23-5		
Molecular Formula:	C ₁₃ H ₁₂ N ₄		
Molecular Weight:	224.26		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (111.48 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.4591 mL	22.2956 mL	44.5911 mL
		5 mM	0.8918 mL	4.4591 mL	8.9182 mL
10 mM		0.4459 mL	2.2296 mL	4.4591 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.56 mg/mL (2.50 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 0.56 mg/mL (2.50 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	PhIP (2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine) is the most abundant of generation of heterocyclic amines (HCA), resulted in the cooking of meat ^{[1][2]} . DNA damaging and mutagenic activities. PhIP also has oestrogenic activity that could contribute to its tissue specific carcinogenicity ^[2] .
In Vitro	PhIP causes widespread and largely over-lapping effects on miRNA expression. PhIP induces widespread effects via activation of oestrogen receptor alpha (ERα). Deregulation of miRNA by PhIP could potentially be an important non-DNA-damaging carcinogenic mechanism in breast cancer ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In hCYP1A-mice, PhIP induces inflammation, epithelial cell damage, and prostatic intraepithelial neoplasia in the

dorsolateral prostate lobe compared to the ventral lobe. PhIP forms DNA adducts in the prostate, PhIP also induces oxidative stress, atrophy of the acini, and inflammation of the prostate of rodents^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Bellamri M, et al. Metabolic Activation of the Cooked Meat Carcinogen 2-Amino-1-Methyl-6-Phenylimidazo[4,5-b]Pyridine in Human Prostate. *Toxicol Sci.* 2018 Jun 1;163(2):543-556.
- [2]. Papaioannou MD, et al. The cooked meat-derived mammary carcinogen 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) elicits estrogenic-like microRNA responses in breast cancer cells. *Toxicol Lett.* 2014 Aug 17;229(1):9-16.
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Caution: Product has not been fully validated for medical applications. For research use only.

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