

Chlorpyrifos-oxon Biochemical

Chlorpyrifos-oxon

CATALOG #
AAA228766

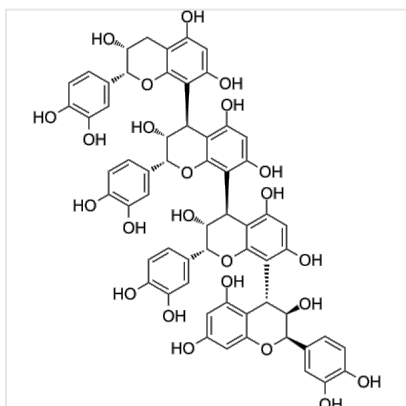
PRODUCT SYNONYMS

Chlorpyrifos-oxon; Chlorpyrifos-oxon biochemical

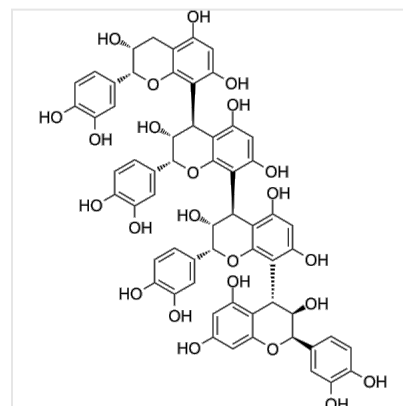
PRODUCT SPECIFICATIONS

Purity/Purification	98%
CAS	5598-15-2
Solubility	<1mg/ml refers to the product slightly soluble or insoluble
In vitro	Chlorpyrifos-oxon (CPO) is rapidly detoxified by human liver microsomes via CYP-dependent deethylation and dearylation, and by glutathione-S-transferase. In addition, reactions with A-esterases such as paraoxonase 1 (PON 1) or B-esterases such as carboxylesterase and butyrylcholinesterase (BChE) in the liver may rapidly degrade or scavenge Chlorpyrifos-oxon[1]. Chlorpyrifos-oxon (3mg/kg, ip; once; wild-type mice) treatment shows the dimensions of microtubules from Chlorpyrifos-oxon-treated mice are about 60% of those from control mice. The microtubules from mice exposed to Chlorpyrifos-oxon have covalently modified amino acids and abnormal structure, suggesting disruption of microtubule function[4].
Preparation and Storage	Powder: -20 degree C for 3 years In solvent: -80 degree C for 2 years

IMAGES



Structure
Cinnamtannin A2, CAS 86631-38-1



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ADDITIONAL INFORMATION

Related Product Information for Chlorpyrifos-oxon biochemical

Chlorpyrifos-oxon, an active metabolite of Chlorpyrifos, is a potent phosphorylating agent that potently inhibits AChE. Chlorpyrifos-oxon can induce cross-linking between subunits of tubulin and disrupt microtubule function[4].

References

1. Yamashita Y, et, al. Cinnamtannin A2, a tetrameric procyanidin, increases GLP-1 and insulin secretion in mice. *Biosci Biotechnol Biochem*. 2013;77(4):888-91.
2. Li N, et, al. Cinnamtannin A2 protects the renal injury by attenuates the altered expression of kidney injury molecule 1 (KIM-1) and neutrophil gelatinase-associated lipocalin (NGAL) expression in 5/6 nephrectomized rat model. *AMB Express*. 2020 May 8;10(1):87.
3. Osakabe N, et, al. Catechins and their oligomers linked by C4 --> C8 bonds are major cacao polyphenols and protect low-density lipoprotein from oxidation in vitro. *Exp Biol Med (Maywood)*. 2002 Jan;227(1):51-6.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/biochemical/chlorpyrifos-oxon/228766>