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**Product Data Sheet**

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Product Name: HZ52  
Cat. No.: GC12159

**Chemical Properties**

Cas. No. 1077626-51-7

Chemical Name 2-(4-(bipheny-4-ylamino)-6-chloropyrimidin-2-ylthio)-octanoic acid

SMILES C1C=CC(NC2=CC=C(C3=CC=CC=C3)C=C2)=NC(SC(CCCCCC)C(O)=O)=N1

Formula  $C_{24}H_{26}ClN_3O_2S$  M.Wt 456.0

Solubility  $\leq 10\text{mg/ml}$  in ethanol;  $20\text{mg/ml}$  in DMSO;  $30\text{mg/ml}$  in dimethyl formamide Storage Store at  $-20^\circ\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^\circ\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^\circ\text{C}$  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**

2-(4-(biphenyl-4-ylamino)-6-chloropyrimidin-2-ylthio)octanoic acid (HZ52) is an inhibitor for 5-Lipoxygenase (5-LO) [1]. 5-Lipoxygenase (5-LO), the key enzyme involved in the biosynthesis of pro-inflammatory leukotrienes (LTs), is a potential target for pharmacological intervention with inflammation and allergic disorders [1].

In vitro: In cell-free assays using partially purified recombinant 5-LO enzyme, HZ52 inhibited 5-LO with an  $IC_{50}$  of  $1.5\ \mu\text{M}$ . In PMNL homogenates, HZ52 inhibited 5-LO with an  $IC_{50}$  of  $9\ \mu\text{M}$  [1]. HZ52 ( $10$  or  $30\ \mu\text{M}$ ) promoted 5-LO translocation to the nuclear membrane in PMNL [1]. The cell-based and cell-free assays revealed that inhibition of 5-LO by HZ52 did not depend on radical scavenging properties and was reversible [1].

In vivo: In rats with carrageenan-induced pleurisy and in mice bearing platelet-activating factor (PAF)-induced lethal shock, HZ52 ( $1.5\ \text{mg/kg}$ , i.p) prevented carrageenan-induced pleurisy accompanied by reducing  $\text{LTB}_4$  levels. HZ52 protected mice ( $10\ \text{mg/kg}$ , i.p)

**Caution: Product has not been fully validated for medical applications. For research use only.**

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against PAF-induced shock. [1].

Reference:

[1] Greiner C, Hrnig C, Rossi A, et al. 2-(4-(Biphenyl-4-ylamino)-6-chloropyrimidin-2-ylthio) octanoic acid (HZ52)-a novel type of 5-lipoxygenase inhibitor with favourable molecular pharmacology and efficacy in vivo[J]. British journal of pharmacology, 2011, 164(2b): 781-793.

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