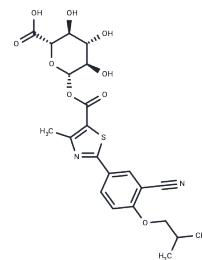


## Febuxostat Acyl Glucuronide

## Chemical Properties

CAS No. :	1351692-92-6
Formula:	C <sub>22</sub> H <sub>24</sub> N <sub>2</sub> O <sub>9</sub> S
Molecular Weight:	492.5
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Febuxostat Acyl Glucuronide is the primary metabolite of the potent xanthine oxidase (XO) inhibitor Febuxostat. It is formed through the glucuronidation of the carboxylic acid group of Febuxostat, a process mediated by UDP-glucuronosyltransferase (UGT) enzymes. The production of this acyl glucuronide is a major elimination pathway for the parent drug. Researching this metabolite is essential for characterizing metabolic clearance, understanding drug-drug interactions, and evaluating the pharmacokinetic variability of Febuxostat across different patient populations, including those with UGT enzymatic polymorphisms.
Targets(IC50)	Drug Metabolite,Xanthine Oxidase
In vitro	Febuxostat Acyl Glucuronide, primarily formed by UGT1A1/1A3/1A8/1A9, shows minimal XO inhibition, confirming glucuronidation as a major inactivation pathway. Due to its reactivity as an acyl glucuronide, it is studied for acyl migration and covalent protein binding to assess potential immunogenicity or toxicity [1].

## Solubility Information

Solubility	Methanol: Soluble DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.0305 mL	10.1523 mL	20.3046 mL
5 mM	0.4061 mL	2.0305 mL	4.0609 mL
10 mM	0.203 mL	1.0152 mL	2.0305 mL
50 mM	0.0406 mL	0.203 mL	0.4061 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Bishoy Kamel, et al. Clinical Pharmacokinetics and Pharmacodynamics of Febuxostat. Clin Pharmacokinet. 2017 May;56(5):459-475.

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