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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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2,5-Dihydroxybenzoic acid

Cat. No.: HY-W001179

CAS No.: 490-79-9

Molecular Formula: $C_7H_6O_4$

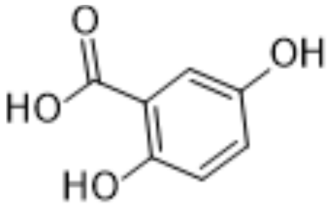
Molecular Weight: 154.12

Target: Endogenous Metabolite; FGFR

Pathway: Metabolic Enzyme/Protease; Protein Tyrosine Kinase/RTK

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 : ≥ 100 mg/mL (648.85 mM)

H_2O : 7.14 mg/mL (46.33 mM; ultrasonic and warming and heat to 60°C)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	6.4885 mL	32.4423 mL	64.8845 mL
5 mM	1.2977 mL	6.4885 mL	12.9769 mL
10 mM	0.6488 mL	3.2442 mL	6.4885 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution

BIOLOGICAL ACTIVITY

Description 2,5-Dihydroxybenzoic acid is a derivative of benzoic and a powerful inhibitor of fibroblast growth factors.

IC_{50} & Target			
	Microbial Metabolite	Fibroblast growth factor	Human Endogenous Metabolite

In Vitro 2,5-Dihydroxybenzoic acid (Gentisic acid) is a derivative of benzoic and a minor product of the metabolic break down of

	aspirin[1]. 2,5-Dihydroxybenzoic acid is also a component of many traditional liquors and herbal remedies, is singled out as a powerful inhibitor of fibroblast growth factors. 2,5-Dihydroxybenzoic acid is used as a lead to identify additional compounds with better inhibitory characteristics generating a new chemical class of fibroblast growth factor inhibitors that includes the agent responsible for alkaptonuria. Through low and high resolution approaches, using representative members of the fibroblast growth factor family and their cell receptors, it is shown that this class of inhibitors may employ two different mechanisms to interfere with the assembly of the signaling complexes that trigger fibroblast growth factor-driven mitogenesis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	It is verified from in vivo disease models that this group of inhibitors (e.g., 2,5-Dihydroxybenzoic acid) may be of interest to treat cancer and angiogenesis-dependent diseases[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- bioRxiv. 2023 Jun 3.

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REFERENCES

[1]. Levy G, et al. Salicylate accumulation kinetics in man. N Engl J Med. 1972 Aug 31;287(9):430-2.

[2]. IS Fernández, et al. Gentisic acid, a compound associated with plant defense and a metabolite of aspirin, heads a new class of in vivo fibroblast growth factor inhibitors. Journal of Biological Chemistry , 2010, 285(15):11714-29.

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