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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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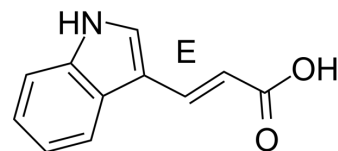
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trans-3-Indoleacrylic acid

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-W015273A | | |
| CAS No.: | 29953-71-7 | | |
| Molecular Formula: | C ₁₁ H ₉ NO ₂ | | |
| Molecular Weight: | 187.19 | | |
| Target: | Endogenous Metabolite; Ferroptosis | | |
| Pathway: | Metabolic Enzyme/Protease; Apoptosis | | |
| 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 : 250 mg/mL (1335.54 mM; Need ultrasonic) | | | |
| | | Solvent Concentration | Mass | |
| | | | 1 mg | 5 mg |
| | | | 10 mg | |
| Preparing Stock Solutions | 1 mM | 5.3422 mL | 26.7108 mL | 53.4217 mL |
| | 5 mM | 1.0684 mL | 5.3422 mL | 10.6843 mL |
| | 10 mM | 0.5342 mL | 2.6711 mL | 5.3422 mL |
| Please refer to the solubility information to select the appropriate solvent. | | | | |
| In Vivo | <ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (11.11 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (11.11 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (11.11 mM); Clear solution | | | |

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|---|
| Description | Trans-3-Indoleacrylic acid is a tryptophan metabolite, which promotes tumor development through inhibition of RSL3 (HY-100218A) induced ferroptosis via AHR-ALDH1A3-FSP1-CoQ10 axis, and facilitates colorectal carcinogenesis ^[1] |
| IC₅₀ & Target | Microbial Metabolite |
| In Vitro | Trans-3-Indoleacrylic acid activates AHR for increased expression of ALDH1A3, which generates NADH for FSP1-mediated synthesis of coenzyme Q10 ^[1] . |

Trans-3-Indoleacrylic acid inhibits RSL3 induced ferroptosis in cells HT1080 and 786-O, (50 μ M, 24 h), decreases lipids peroxidation (50 μ M, 4 h)^[1].

Trans-3-Indoleacrylic acid inhibits IKE-induced (10 μ M) ferroptosis in HT29 tumor spheroids (100 μ M, 48 h) and HT29 organoids (100 μ M, 72 h) and promotes tumor growth^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

| | |
|------------------|---|
| Cell Line: | HT29, HT1080 |
| Concentration: | 5-500 μ M |
| Incubation Time: | 24 h |
| Result: | Inhibited ferroptosis in HT29 and HT1080, with presence of AHR or FSP1. |

In Vivo

Trans-3-Indoleacrylic acid (50 mg/kg, i.p., three times a week) promotes tumor development in HT29 tumor-bearing xenograft nu/nu mice ^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|-----------------|--|
| Animal Model: | HT29 tumor-bearing xenograft nu/nu mice ^[1] |
| Dosage: | 50 mg/kg |
| Administration: | Intraperitoneal injection, three times a week |
| Result: | Promoted tumor growth with deficiency of AHR or FSP1. |

REFERENCES

[1]. Cui W, et al., Gut microbial metabolite facilitates colorectal cancer development via ferroptosis inhibition. Nat Cell Biol. 2024 Jan;26(1):124-137.

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

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