SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

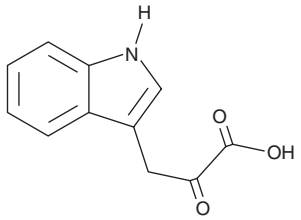
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Indole-3-pyruvic Acid

Item No. 29876

CAS Registry No.:	392-12-1
Formal Name:	α-oxo-1H-indole-3-propanoic acid
Synonyms:	Indole-3-pyruvate, IPA, IPyr, NSC 88874
MF:	$C_{11}H_9NO_3$
FW:	203.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 233, 326 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Indole-3-pyruvic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the indole-3-pyruvic acid in the solvent of choice, which should be purged with an inert gas. Indole-3-pyruvic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of indole-3-pyruvic acid in these solvents is approximately 30 mg/ml.

Indole-3-pyruvic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, indole-3-pyruvic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Indole-3-pyruvic acid has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Indole-3-pyruvic acid is an endogenous metabolite of tryptophan and intermediate in the biosynthesis of the major auxin hormone, indole-3-acetic acid (IAA; Item No. 16954), in plants.[1-3] Indole-3-pyruvic acid (50 and 250 µM) activates the aryl hydrocarbon receptor (AhR) in a reporter assay.[1] It reduces UVB-induced cytotoxicity and the levels of COX-2 in HaCaT keratinocytes.[4] Topical administration of indole-3-pyruvic acid (100 µmol) reduces the severity of UVB-induced damage in mouse skin. Dietary administration of indole-3-pyruvic acid (0.1%) reduces diarrhea, colonic inflammation, and the colonic expression of *Il1b*, *Ifng*, *Tnfa*, and *Il12b* in a mouse model of T cell-mediated colitis.[1] It increases the time spent in the open arms of the elevated plus maze in mice when administered at a dose of 100 mg/kg.[2] It also reverses the anxiogenic effect of caffeine (Item No. 14118) and 3-hydroxy kynurenine, but not pentylenetetrazole (Item No. 18682) or phenylethylamine, in the elevated plus maze in mice.

References

1. Aoki, R., Aoki-Yoshida, A., Suzuki, C., *et al.* Indole-3-pyruvic acid, an aryl hydrocarbon receptor activator, suppresses experimental colitis in mice. *J. Immunol.* **201(12)**, 3683-3693 (2018).
2. Lapin, I.P. and Politi, V. Anxiolytic effect of indole-3-pyruvic acid (IPA) in mice. *Pharmacol. Res.* **28(2)**, 129-134 (1993).
3. Mashiguchi, K., Tanaka, K., Sakai, T., *et al.* The main auxin biosynthesis pathway in Arabidopsis. *Proc. Natl. Acad. Sci. USA* **108(45)**, 18512-18517 (2011).
4. Aoki, R., Aoki-Yoshida, A., Suzuki, C., *et al.* Protective effect of indole-3-pyruvate against ultraviolet b-induced damage to cultured HaCaT keratinocytes and the skin of hairless mice. *PLoS One* **9(5)**, e96804 (2014).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM