

Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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PRODUCT INFORMATION



trans-Indole-3-acrylic Acid

Item No. 40655

CAS Registry No.:	29953-71-7
Formal Name:	3-(1H-indol-3-yl)-2E-propenoic acid
Synonyms:	IA, trans-3-Indoleacrylic acid
MF:	$C_{11}H_9NO_2$
FW:	187.2 ⁻
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Information represents the product specifications Batch specific analytic	



ct specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

trans-Indole-3-acrylic acid is supplied as a solid. A stock solution may be made by dissolving the transindole-3-acrylic acid in the solvent of choice, which should be purged with an inert gas. trans-Indole-3-acrylic acid is soluble ($\geq 10 \text{ mg/ml}$) in DMSO and ethanol.

Description

trans-Indole-3-acrylic acid is a metabolite of the essential amino acid L-tryptophan (Item No. 29600).¹ It is formed from tryptophan by gut microbiota. trans-Indole-3-acrylic acid (100 μ M) increases the levels of mRNA encoding mucin 2 and II-10, as well as decreases mRNA encoding Tnf- α , in primary mouse large intestinal spheroids co-cultured with LPS-stimulated primary mouse bone marrow-derived macrophages (BMDMs). It has been used as a precursor in the synthesis of anticancer agents and tubulin polymerization inhibitors, as well as used as a reactive chromophore probe to assess the α and β subunit conformational changes of S. typhimurium tryptophan synthase in tryptophan biosynthesis.^{2,3}

References

- 1. Wlodarska, M., Luo, C., Kolde, R., et al. Indoleacrylic acid produced by commensal peptostreptococcus species suppresses inflammation. Cell Host Microbe 22(1), 25-37 (2017).
- 2. Baytas, S.N., Inceler, N., Yilmaz, A., et al. Synthesis, biological evaluation and molecular docking studies of trans-indole-3-acrylamide derivatives, a new class of tubulin polymerization inhibitors. Bioorg. Med. Chem. 22(12), 3096-3104 (2014).
- 3. Casino, P., Niks, D., Ngo, H., et al. Allosteric regulation of tryptophan synthase channeling: The internal aldimine probed by trans-3-indole-3'-acrylate binding. Biochemistry 46(26), 7728-7739 (2007).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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