

## Produktinformation



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Diagnostik & molekulare Diagnostik
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#### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



(+)-Longifolene

Item No. 37362

CAS Registry No.:	475-20-7	
Formal Name:	(1S,3aR,4S,8aS)-decahydro-4,8,8-trimethyl-9-	
	methylene-1,4-methanoazulene	
Synonyms:	Junipene, Kuromatsuene, NSC 150808	H H
MF:	C <sub>15</sub> H <sub>24</sub>	
FW:	204.4	
Purity:	≥90%	
Supplied as:	A liquid	
Storage:	-20°C	
Stability:	≥4 years	
Item Origin:	Plant/Pinus massoniana Lamb	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

(+)-Longifolene is supplied as a liquid. A stock solution may be made by dissolving the (+)-longifolene in the solvent of choice, which should be purged with an inert gas. (+)-Longifolene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (+)-longifolene in ethanol is approximately 25 mg/ml and approximately 10 mg/ml in DMSO and DMF.

#### Description

(+)-Longifolene is a tricyclic sesquiterpene that has been found in C. japonica and has diverse biological activities.<sup>1-4</sup> It is active against S. aureus and E. faecalis (MICs = 600 and 60 ppm, respectively).<sup>1</sup> (+)-Longifolene (1 mg/L) is toxic to red tide plankton (S. costatum).<sup>2</sup> It induces cytotoxicity in DU145 prostate cancer and SCC-9 oral squamous cell carcinoma cells (IC<sub>50</sub>s = 78.64 and 88.92  $\mu$ g/ml, respectively).<sup>3</sup> (+)-Longifolene is toxic to waterfleas (D. magna and C. dubia) and fathead minnows (P. promelas; LC<sub>50</sub>s = 0.44, 0.41, and 10.2 mg/L, respectively).<sup>4</sup>

#### References

- 1. Schmidt, E., Bail, S., Friedl, S.M., et al. Antimicrobial activities of single aroma compounds. Nat. Prod. Commun. 5(9), 1365-1368 (2010).
- 2. Tsuruta, K., Yoshida, Y.M., Kusumoto, N., et al. Inhibition activity of essential oils obtained from Japanese trees against Skeletonema costatum. J. Wood Sci. 57, 520-525 (2011).
- 3. Grover, M., Behl, T., Virmani, T., et al. Exploration of cytotoxic potential of longifolene/junipene isolated from Chrysopogon zizanioides. Molecules 27(18), 5764 (2022).
- 4. Sweet, L.I., and Meier, P.G. Lethal and sublethal effects of azulene and longifolene to Microtox®, Ceriodaphnia dubia, Daphnia magna, and Pimephales promelas. Bull. Environ. Contam. Toxicol. 58(2), 268-274 (1997).

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

#### SAFETY 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.

#### WARRANTY AND LIMITATION OF REMEDY

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