

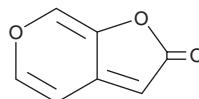
PRODUCT INFORMATION



Karrikin 2

Item No. 29822

CAS Registry No.: 857054-03-6
Formal Name: 2H-furo[2,3-c]pyran-2-one
Synonym: KAR₂
MF: C₇H₄O₃
FW: 136.1
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Karrikin 2 is supplied as a solid. A stock solution may be made by dissolving the karrikin 2 in the solvent of choice, which should be purged with an inert gas. Karrikin 2 is soluble in chloroform and methanol.

Description

Karrikin 2 is a seed germination stimulant that has been found in plant-derived smoke.^{1,2} It induces germination of *A. thaliana*, *L. sativa*, *E. penduliflora*, and *S. orbiculatum* seeds in a concentration-dependent manner.^{1,3} Karrikin 2 (1 μM) increases expression of the gibberellin (GA) biosynthesis genes GA3ox1 and GA3ox2 and the GA₄-responsive gene CP1 in *A. thaliana* seeds.¹

References

1. Nelson, D.C., Riseborough, J.-A., Flematti, G.R., *et al.* Karrikins discovered in smoke trigger arabidopsis seed germination by a mechanism requiring gibberellic acid synthesis and light. *Plant Physiol.* **149**(2), 863-873 (2009).
2. Flematti, G.R., Ghisalberti, E.L., Dixon, K.W., *et al.* Identification of alkyl substituted 2H-furo[2,3-c]pyran-2-ones as germination stimulants present in smoke. *J. Agric. Food Chem.* **57**(20), 9475-9480 (2009).
3. Flematti, G.R., Goddard-Borger, E.D., Merritt, D.J., *et al.* Preparation of 2H-furo[2,3-c]pyran-2-one derivatives and evaluation of their germination-promoting activity. *J. Agric. Food Chem.* **55**(6), 2189-2194 (2007).

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.

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