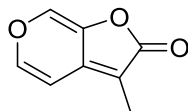


Karrikinolide

Code No.: **BIA-K1791**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms : KAR1, Karrikin 1

Specifications

CAS #	: 857054-02-5
Molecular Formula	: C₈H₆O₃
Molecular Weight	: 150.1
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Karrikinolide (KAR1) was discovered by Ghisalberti, Flematti and colleagues, University of Western Australia in 2009. Karrikinolide, found in smoke water extracts, acts as a key germination trigger for many species from fire-prone, Mediterranean climates, but is also active in plants from temperate regions. Karrikinolide enhances expression of the gibberellic acid biosynthetic genes, GA3ox1 and GA3ox2, during seed imbibition. Karrikinolide stimulation of Arabidopsis germination is light-dependent and reversible by far-red exposure, although limited induction of GA3ox1 still occurs in the dark.

References

1. Identification of alkyl substituted 2H-furo[2,3-c]pyran-2-ones as germination stimulants present in smoke. Flematti G.R. J. Agric. Food Chem. 2009, 57, 9475.
2. Karrikins discovered in smoke trigger Arabidopsis seed germination by a mechanism requiring gibberellic acid synthesis and light. Nelson D.C. et al., Plant Physiol. 2009, 149, 863.
3. Karrikinolide - a phytoactive compound derived from smoke with applications in horticulture, ecological restoration and agriculture. Dixon K.W., Acta Hort. 2009, 813, 155.