

Monoacetylphloroglucinol

PRODUCT DATA SHEET

Code No.: BIA-M1378

Pack sizes: 5 mg, 25 mg



Synonyms

2',4',6'-trihydroxyacetophenone

Specifications		
CAS #	:	480-66-0
Molecular Formula	:	C ₈ H ₈ O ₄
Molecular Weight	:	168.2
Source	:	Pseudomonas fluorescens
Appearance	:	White solid
Purity	:	>95% by HPLC
Long Term Storage	:	-20°C
Solubility	:	Soluble in ethanol, methanol, DMF or DMSO. Moderate water solubility.

Application Notes

Monoacetylphloroglucinol (MAPG) is small molecular weight phenolic metabolite belonging to the phloroglucinol (1,3,5trihydroxybenzene) family, produced by bacteria including Pseudomonas strains. MAPG exhibits a broad range of biological activity albeit with mostly low potency. In the search for novel actives, MAPG and related metabolites are important metabolites for dereplication to eliminate leads due to high amounts of weakly potent actives. Although weakly active, this family appears to be important in the biocontrol of plant diseases by some Pseudomonas strains.

References

- Liquid chromatographic assay of microbially derived phloroglucinol antibiotics for establishing the biosynthetic route to production, and the factors affecting their regulation. Shanahan P. & Glennon J.D. Anal. Chim. Acta 1993, 272, 271.
- 2. Role of 2,4-diacetylphloroglucinol in the interactions of the biocontrol Pseudomonad strain F113 with the potato cyst nematode Globodera rostochiensis. Cronin D. et al., Appl. Environ. Microbiol. 1997, 63, 1357.
- 3. Suppression of root diseases by Pseudomonas fluorescens CHA0: importance of the bacterial secondary metabolite 2,4-diacetylphloroglucinol. Keel C. et al., Molec. Plant-Microbe Interact. 1992, 5, 4.

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