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## DATASHEET

Arctigenin

### Product overview

<b>Name</b>	Arctigenin
<b>Cat No</b>	HB0119
<b>Alternative names</b>	(-)-Arctigenin
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>98%
<b>Description</b>	Potent MAP kinase kinase (MKK/MEK) inhibitor

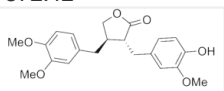
### Biological Data

<b>Biological description</b>	Potent MAP kinase kinase (MKK/MEK) inhibitor ( $IC_{50} = 1$ nM for MKK1/MEK1). Antiviral, anti-cancer, antioxidant and anti-inflammatory compound. Inhibits iNOS expression by suppressing 1-kBa phosphorylation and nuclear translocation of p65 ( $IC_{50} = 10$ nM). Shows neuroprotective actions.
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### Solubility & Handling

<b>Storage instructions</b>	-20 °C (desiccate)
<b>Solubility overview</b>	Soluble in ethanol (25mM, gentle warming) or DMSO (100mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	(3 <i>R</i> ,4 <i>R</i> ) )-4-[(3,4-Dimethoxyphenyl)methyl]dihydro-3-[(4-hydroxy-3-methoxyphenyl)methyl]-2(3 <i>H</i> )-furanone
<b>Molecular Weight</b>	372.42
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>21</sub> H <sub>24</sub> O <sub>6</sub>
<b>CAS Number</b>	7770-78-7
<b>PubChem identifier</b>	64981
<b>SMILES</b>	OC(C=C3)=C(OC)C=C3C[C@@H](C(OC2)=O)[C@H]2CC1=CC(OC)=C(OC)C=C1
<b>InChiKey</b>	NQWVSMVXKMHKTF-JKSUJKDBSA-N

### References

**Arctigenin protects cultured cortical neurons from glutamate-induced neurodegeneration by binding to kainate receptor.**

Jang YP *et al* (2002) J Neurosci Res 68(2)

**PubMedID** 11948668

**Potent inhibition of lipopolysaccharide-inducible nitric oxide synthase expression by dibenzylbutyrolactone lignans through inhibition of I-kappaBalpha phosphorylation and of p65 nuclear translocation in macrophages.**

Cho MK *et al* (2002) Int Immunopharmacol 2(1)

PubMedID

11789661

**Arctigenin anti-tumor activity in bladder cancer T24 cell line through induction of cell-cycle arrest and apoptosis.**

Yang S *et al* (2012) *Anat Rec (Hoboken)* 295(8)

PubMedID

22619087

**Arctigenin, a phenylpropanoid dibenzylbutyrolactone lignan, inhibits MAP kinases and AP-1 activation via potent MKK inhibition: the role in TNF-alpha inhibition.**

Cho MK *et al* (2004) 4(10-11)

PubMedID

15313439

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