

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com



DATASHEET

PEP 005

Product overview

Name	PEP 005
Cat No	HB0482
Alternative names	Ingenol 3-angelate
Biological action	Agonist
Purity	>98%
Description	Broad spectrum PKC agonist

Biological Data

Biological description	Broad spectrum protein kinase C (PKC) agonist. Also inhibits AKT pathway. Displays pro-apoptotic, anti-proliferative, pro-inflammatory and anti-cancer properties.
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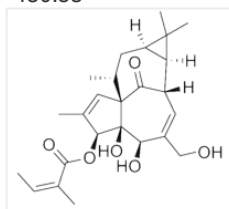
Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO (2mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(2 <i>Z</i>)-2-Methyl-2-butenic acid (1 <i>aR</i> ,2 <i>S</i> ,5 <i>R</i> ,5 <i>aS</i> ,6 <i>S</i> ,8 <i>aS</i> ,9 <i>R</i> ,10 <i>aR</i>)-1 <i>a</i> ,2,5,5 <i>a</i> ,6,9,10,10 <i>a</i> -octahydro-5,5 <i>a</i> -dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1 <i>H</i> -2,8a-methanonocyclopenta[<i>a</i>]cyclopropa[<i>e</i>]cyclodecen-6-yl ester
Molecular Weight	430.53

Chemical structure



Molecular Formula	C ₂₅ H ₃₄ O ₆
CAS Number	75567-37-2
PubChem identifier	6918670
SMILES	CC([C@@H]2OC(/C(C)=C)O)=C[C@@]1([C@H](C)C4)[C@]2(O)[C@H](O)C(CO)=C[C@]([C@@]3([H])[C@]4([H])C(C)3C)([H])C1=O
InChiKey	VDJHFHXMUKFKET-WDUFCVPESA-N

References

Kinetics of ERK1/2 activation determine sensitivity of acute myeloid leukaemia cells to the induction of apoptosis by the novel small molecule ingenol 3-angelate (PEP005).

Hampson P *et al* (2010) Apoptosis 15(8)

PubMedID

20467815

The protein kinase C agonist PEP005 (ingenol 3-angelate) in the treatment of human cancer: a balance between efficacy and toxicity.

Ersvaer E *et al* (2010) *Toxins* (Basel) 2(1)

PubMedID

22069553

Effects of protein kinase C modulation by PEP005, a novel ingenol angelate, on mitogen-activated protein kinase and phosphatidylinositol 3-kinase signaling in cancer cells.

Serova M *et al* (2008) *Mol Cancer Ther* 7(4)

PubMedID

18413805

Antiproliferative activity of PEP005, a novel ingenol angelate that modulates PKC functions, alone and in combination with cytotoxic agents in human colon cancer cells.

Benhadji KA *et al* (2008) *Br J Cancer* 99(11)

PubMedID

19034280
