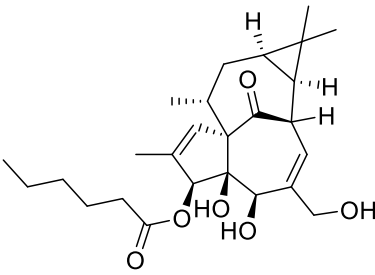


Product data sheet



MedKoo Cat#: 561544 Name: Ingenol 3-Hexanoate CAS: 83036-61-7 Chemical Formula: C ₂₆ H ₃₈ O ₆ Exact Mass: 446.2668 Molecular Weight: 446.584		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions:	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Ingenol 3-Hexanoate novel potent reactivator of latent HIV-1.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.24 mL	11.20 mL	22.39 mL
5 mM	0.45 mL	2.24 mL	4.48 mL
10 mM	0.22 mL	1.12 mL	2.24 mL
50 mM	0.05 mL	0.22 mL	0.45 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. da Costa LC, Bomfim LM, Dittz UVT, Velozo CA, da Cunha RD, Tanuri A. Repression of HIV-1 reactivation mediated by CRISPR/dCas9-KRAB in lymphoid and myeloid cell models. *Retrovirology*. 2022 Jun 22;19(1):12. doi: 10.1186/s12977-022-00600-9. PMID: 35733180; PMCID: PMC9215058.

In vivo study

1. Okoye AA, Fromentin R, Takata H, Brehm JH, Fukazawa Y, Randall B, Pardons M, Tai V, Tang J, Smedley J, Axthelm M, Lifson JD, Picker LJ, Favre D, Trautmann L, Chomont N. The ingenol-based protein kinase C agonist GSK445A is a potent inducer of HIV and SIV RNA transcription. *PLoS Pathog*. 2022 Jan 18;18(1):e1010245. doi: 10.1371/journal.ppat.1010245. PMID: 35041707; PMCID: PMC8797195.

7. Bioactivity

Biological target:

Ingenol 3-Hexanoate, or Ingenol B, is a novel potent reactivator of latent HIV-1.

In vitro activity

One of the sgRNAs (LTR5), which binds specifically in the HIV-1 LTR NFκB binding site, was able to promote robust repression of HIV-1 reactivation in latently infected T cells stimulated with Phorbol 12-Myristate 13-Acetate (PMA) and Ingenol B (IngB), both potent protein kinase C (PKC) stimulators.

Product data sheet



Reference: Retrovirology. 2022 Jun 22;19(1):12. <https://pubmed.ncbi.nlm.nih.gov/35733180/>

In vivo activity

However, significant toxicity risks and the lack of evidence supporting their activity in vivo have limited further evaluation of PKC agonists as HIV latency-reversing agents (LRA) in cure strategies. Here this study evaluated whether GSK445A, a stabilized ingenol-B derivative, can induce HIV/simian immunodeficiency virus (SIV) transcription and virus production in vitro and demonstrate pharmacological activity in nonhuman primates (NHP). In vivo, GSK445A tolerability was established in SIV-naïve RM at 15 µg/kg although tolerability was reduced in SIV-infected RM on ART. Increases in plasma viremia following GSK445A administration were suggestive of increased SIV transcription in vivo. Collectively, these results indicate that GSK445A is a potent HIV/SIV LRA in vitro and has a tolerable safety profile amenable for further evaluation in vivo in NHP models of HIV cure/remission.

Reference: PLoS Pathog. 2022 Jan 18;18(1):e1010245. <https://pubmed.ncbi.nlm.nih.gov/35041707/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.