Withaferin A

NF-κB inhibitor

Cell permeable and potent angiogenesis inhibitor from the family of withanolides. Inhibits endothelial cells (HUVEC) sprouting *in vitro* (IC_{50} =12nM) and *in vivo*. Exhibits antitumor, anti-inflammatory, radiosensitizing, and immunosuppressive properties. Potently inhibits NF-κB activation by preventing the TNF-induced activation of IκB kinase β (IKKβ). Elicits IKKß hyperphosphorylation concomitant with inhibition of its kinase activity. Affects AP1 transcription and induces cell death. Alters cytoskeletal architecture by covalently binding annexin II and stimulating its basal F-actin cross-linking activity which inhibits the migratory and invasive capability of endothelial cells. Targets the intermediate filament protein vimentin. Displays neuronal regenerative properties. It induced significant regeneration of both axons and dendrites in an A β-induced axonal atrophy model.

Citations: 14 View Online »

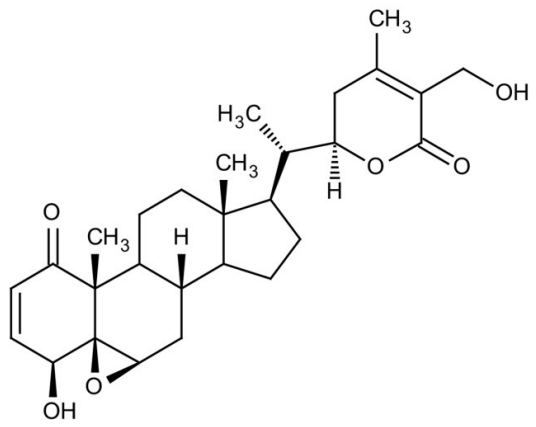
Ordering Information

Order Online »

BML-CT104-0010	10mg

Manuals, SDS & CofA

View Online »


CH3
OH
H3C
CH3
O
O
H
O
CH3
H
O
OH

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored, as supplied, at -20°C. Stock solutions are stable for up to 3 months at -20°C.
Handling	Protect from light.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	5,6-Epoxy-4,27-dihydroxy-1-oxowitha-2,24-dienolide
Appearance	Off-white solid.
CAS	5119-48-2
Couple Target	NF-kappaB
Couple Type	Inhibitor
Formula	$C_{28}H_{38}O_6$
MI	**14:** 10048
MW	470.6
MeltingPoint	241-243°C
Purity	≥99% (HPLC)
RTECS	KE7288500
Solubility	Soluble in DMSO (20 mg/ml), methanol (10 mg/ml) or 100% ethanol.
Source	Isolated from *Withania somnifera*.

Last modified: May 29, 2024

ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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