

# 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 IKKβ 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

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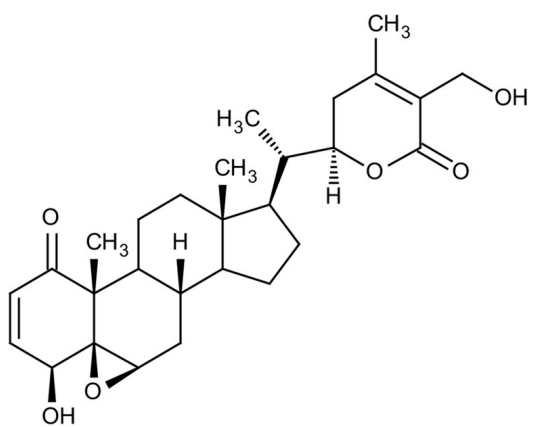
## Ordering Information

[Order Online »](#)

BML-CT104-0010	10mg
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## Manuals, SDS & CofA

[View Online »](#)



## 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 <sub>28</sub> H <sub>38</sub> O <sub>6</sub>
MI	<b>14:</b> 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 <i>Withania somnifera</i> .



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