

Resveratrol

NF- κ B inhibitor

Catalog # tlr1-resv

For research use only

Version # 12E22-MM

PRODUCT INFORMATION

Content:

100 mg Resveratrol provided lyophilized

Storage and stability:

- Resveratrol is shipped at room temperature. Store lyophilized product at -20°C. Product is stable for 1 year.

-Upon resuspension in DMSO, Resveratrol is stable for 3 months at 4°C. Protect from light.

DESCRIPTION

Resveratrol (3,4',5-trihydroxy-trans-stilbene) is a polyphenol found in plants known to possess anti-inflammatory and chemopreventive properties. Resveratrol has been shown to inhibit the expression of proinflammatory markers, including inducible nitric oxide synthase and cyclooxygenase-2 in macrophages and cancer cells¹, block TRIF-dependent signaling pathway of TLR3 and TLR4² and modulate bacterial phagocytosis of macrophages³. Resveratrol may exert these diverse effects by suppressing NF- κ B activation.

1. Lorne E. *et al.*, 2009. Participation of Mammalian Target of Rapamycin Complex 1 in Toll-Like Receptor 2- and 4-Induced Neutrophil Activation and Acute Lung Injury. *Am. J. Respir. Cell Mol. Biol.* 41: 237 - 245. 2. Bhat KP. & Pezzuto JM., 2002. Cancer chemopreventive activity of resveratrol. *Ann. NY Acad. Sci.* 957:210.-229. 3. Youn HS *et al.*, 2005. Specific inhibition of MyD88-independent signaling pathways of TLR3 and TLR4 by resveratrol: molecular targets are TBK1 and RIP1 in TRIF complex. *J Immunol.* 175(5):3339-46.

CHEMICAL PROPERTIES

CAS number: 501-36-0

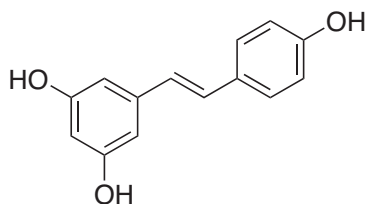
Formula: C₁₄H₁₂O₃

Molecular weight: 228.24

Appearance: Off-white to pale yellow color

Solubility: 20 mg/ml in DMSO provides a clear yellow solution

Purity: >98%



METHODS

Preparation of stock solution (20 mg/ml):

To obtain a 20 mg/ml stock solution:

1. Add 250 μ l DMSO to 5 mg Resveratrol. This provides a solution at 20 mg/ml (88 mM).
2. Vortex until complete solubilization.
3. Aliquote and store at 4°C.
4. Once resveratrol is solubilized, dilutions can be prepared by adding sterile water or culture medium. Aqueous dilutions of resveratrol should not be stored for more than 1 day.

Working concentration: 10-100 μ M (2.3 - 23 μ g/ml)

NF κ B inhibition:

To assess the role of NF- κ B, pretreat cells, such as macrophages or HEK293 cells transfected with one or several TLR genes, for 1 hour with or without resveratrol at 10-100 μ M and then incubate at 37°C with the appropriate TLR ligand for 1 to 6 hours. Detect NF- κ B inhibition using the appropriate detection system.

RELATED PRODUCTS

Product	Catalog Code
HEK-Blue hTLR2 cells (SEAP reporter cells)	hkb-htlr2
pUNO1-hTLR2 (plasmid with human gene)	puno1-htlr2
pUNO-mTLR2 (plasmid with mouse gene)	puno-mtlr2
Pam3CSK4 (TLR2 ligand)	tlr1-pms

TECHNICAL SUPPORT

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