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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

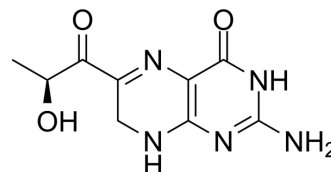
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

L-Sepiapterin

Cat. No.:	HY-112234		
CAS No.:	17094-01-8		
Molecular Formula:	C ₉ H ₁₁ N ₅ O ₃		
Molecular Weight:	237.22		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	L-Sepiapterin (Sepiapterin) is a precursor of the endothelial nitric oxide synthase (eNOS) cofactor tetrahydrobiopterin (BH4). L-Sepiapterin improves endothelial dysfunction in small mesenteric arteries from db/db mice, and induces angiogenesis. L-Sepiapterin inhibits cell proliferation and migration of ovarian cancer cells via down-regulation of p70 ^{S6K} -dependent VEGFR-2 expression ^{[1][2]} .								
IC₅₀ & Target	Human Endogenous Metabolite								
In Vitro	<p>L-Sepiapterin (Sepiapterin) (0.1-10 μM; 24 hours) induces cell proliferation in a dose-dependent manner^[1]. L-Sepiapterin (1-50 μM; 20 minutes) significantly inhibits the phosphorylation of VEGF-A-induced (50 ng/ml) p70^{S6K}^[1]. L-Sepiapterin inhibits VEGF-A-induced cell proliferation and migration through NO-independent mechanism^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>SKOV-3 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.1, 1, 10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Induced cell proliferation in a dose-dependent manner.</td> </tr> </table>	Cell Line:	SKOV-3 cells	Concentration:	0.1, 1, 10 μM	Incubation Time:	24 hours	Result:	Induced cell proliferation in a dose-dependent manner.
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Concentration:	0.1, 1, 10 μM								
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Result:	Induced cell proliferation in a dose-dependent manner.								
In Vivo	<p>Sepiapterin (10 mg/kg; p.o. (powder chow); daily for or 8 weeks) significantly improves the relaxation to Ach in small mesenteric arteries (SMA) from db/db mice^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male C57BL/KsJ diabetic mice (db/db)^[2]</td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>P.o. (powder chow); daily for or 8 weeks</td> </tr> <tr> <td>Result:</td> <td>Significantly improved the relaxation to Ach in SMA from db/db mice.</td> </tr> </table>	Animal Model:	Male C57BL/KsJ diabetic mice (db/db) ^[2]	Dosage:	10 mg/kg	Administration:	P.o. (powder chow); daily for or 8 weeks	Result:	Significantly improved the relaxation to Ach in SMA from db/db mice.
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Result:	Significantly improved the relaxation to Ach in SMA from db/db mice.								

REFERENCES

- [1]. Pannirselvam M, et al. Chronic oral supplementation with sepiapterin prevents endothelial dysfunction and oxidative stress in small mesenteric arteries from diabetic (db/db) mice. *Br J Pharmacol.* 2003;140(4):701-706.
- [2]. Cho YR, et al. Sepiapterin inhibits cell proliferation and migration of ovarian cancer cells via down-regulation of p70S6K-dependent VEGFR-2 expression. *Oncol Rep.* 2011;26(4):861-867.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA