



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

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

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

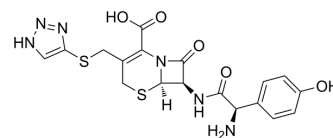
mail@szabo-scandic.com

www.szabo-scandic.com

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

Cefatrizine

Cat. No.:	HY-123024
CAS No.:	51627-14-6
Molecular Formula:	C ₁₈ H ₁₈ N ₆ O ₅ S ₂
Molecular Weight:	462.5
Target:	Apoptosis; Antibiotic; Bacterial
Pathway:	Apoptosis; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

H₂O : 250 mg/mL (540.54 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.1622 mL	10.8108 mL	21.6216 mL	
5 mM	0.4324 mL	2.1622 mL	4.3243 mL	
10 mM	0.2162 mL	1.0811 mL	2.1622 mL	

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Cefatrizine (BL-S-640) is an orally active and broad-spectrum cephalosporin antibiotic. Cefatrizine is also a eEF2K inhibitor, with anti-proliferative activity in human breast cancer cells, which could induce ER stress, leading to cell death. Cefatrizine can be used in studies of cancer and bacterial infection^{[1][2]}.

IC₅₀ & Target

β-lactam

In Vitro

Cefatrizine (0-100 μM; 24 h) causes a remarkable anti-proliferative effect on MCF-7 and MDA-MB-436 cell growth in a dose-dependent manner^[1].
 Cefatrizine (30 μM; 12 h) induces ER stress in breast cancer cells^[1].
 Cefatrizine (12, 24, 36 h) increases level of CHOP (marker of ER stress induced apoptosis) and promotes expressions of core proteins in eEF2K-modulated ER stress pathways (Bip, p-PERK, XBP-1S and p-JNK) in MCF-7 and MDA-MB-436 cells^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Cell Proliferation Assay^[1]

Cell Line: MCF-7, MDA-MB-436 cells

	Concentration:	0-100 μ M
	Incubation Time:	24 h
	Result:	Led to a remarkable anti-proliferative effect on cells and resulted in almost 50% inhibition in the MCF-7 and MDA-MB-436 cells when at 33 μ M and 29 μ M.
	Cell Viability Assay ^[1]	
	Cell Line:	MCF-7, MDA-MB-436 cells
	Concentration:	30 μ M
	Incubation Time:	12 h
	Result:	Led to massive cytoplasmic vacuolization.
In Vivo	Cefatrizine (BL-S-640) (0.2, 1, 5, 25 mg/kg; p.o.; 4 times daily for 3 days) reduces the number of infecting organisms in the bladder and the kidneys in <i>P. mirabilis</i> intracystically infected model ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male Swiss-Webster mice (19-21 g; <i>P. mirabilis</i> intracystically infected model) ^[2] .
	Dosage:	0.2, 1, 5, 25 mg/kg
	Administration:	Oral administration; 4 times daily for 3 days.
	Result:	Reduced the number of infecting organisms to less than 1,000 in the bladder when 1 mg/kg, and in the kidneys when 0.2 mg/kg.

REFERENCES

[1]. Yao Z, et al. Integrative bioinformatics and proteomics-based discovery of an eEF2K inhibitor (cefatrizine) with ER stress modulation in breast cancer cells. *Mol Biosyst.* 2016 Mar;12(3):729-36.

[2]. Leitner F, et al. BL-S640, a cephalosporin with a broad spectrum of antibacterial activity: bioavailability and therapeutic properties in rodents. *Antimicrob Agents Chemother.* 1975 Mar;7(3):306-10.

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