



# 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

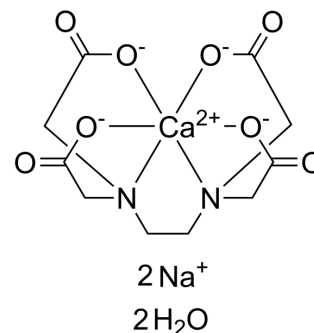
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

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

## Ca(II)-EDTA disodium dihydrate

Cat. No.:	HY-W749867
CAS No.:	6766-87-6
Molecular Formula:	C <sub>10</sub> H <sub>12</sub> CaN <sub>2</sub> O <sub>8</sub> ·2H <sub>2</sub> ·2Na
Molecular Weight:	410.3
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ca(II)-EDTA disodium dihydrate (Calcium disodium EDTA dihydrate) is an orally active metal chelating reagent, exhibits bactericidal activities against periodontal pathogens <i>Aggregatibacter actinomycetemcomitans</i> , <i>Prevotella intermedia</i> and <i>Porphyromonas gingivalis</i> <sup>[1]</sup> . Ca(II)-EDTA disodium dihydrate is effective chelating antidotes for lead- and cadmium poisoning <sup>[2][3]</sup> .								
<b>In Vitro</b>	<p>Ca(II)-EDTA disodium dihydrate (0-100 mM) inhibits growths of periodontopathic bacteria <i>A. actinomycetemcomitans</i>, <i>P. intermedia</i> and <i>P. gingivalis</i>, with MICs of 70, 70 and 60 mM, respectively<sup>[1]</sup>.</p> <p>Ca(II)-EDTA disodium dihydrate (0-1000 mM) exhibits cytotoxicity in L929 cells and a safe dose of 75 mM<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Murine L929 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-1000 mM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Reduced cell viability in a dose-dependent manner. Remained a survival rate of 93% at the concentration of 75 mM.</td> </tr> </table>	Cell Line:	Murine L929 cells	Concentration:	0-1000 mM	Incubation Time:	24 h	Result:	Reduced cell viability in a dose-dependent manner. Remained a survival rate of 93% at the concentration of 75 mM.
Cell Line:	Murine L929 cells								
Concentration:	0-1000 mM								
Incubation Time:	24 h								
Result:	Reduced cell viability in a dose-dependent manner. Remained a survival rate of 93% at the concentration of 75 mM.								
<b>In Vivo</b>	<p>Ca(II)-EDTA disodium dihydrate (50 mg/kg, p.o. for 4 weeks) alleviates the toxic effects of cadmium on kidney and bone with preference to the nanoparticles form<sup>[2]</sup>.</p> <p>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>Sprague Dawley rats<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>50 mg/kg/day</td> </tr> <tr> <td>Administration:</td> <td>p.o. for 4 weeks (three-day break after each four consecutive days of administration)</td> </tr> <tr> <td>Result:</td> <td>Increased the body weight compared to the Cd-intoxicated group. Decreased in serum creatinine and cadmium concentration compared to the Cd-intoxicated group.</td> </tr> </table>	Animal Model:	Sprague Dawley rats <sup>[2]</sup>	Dosage:	50 mg/kg/day	Administration:	p.o. for 4 weeks (three-day break after each four consecutive days of administration)	Result:	Increased the body weight compared to the Cd-intoxicated group. Decreased in serum creatinine and cadmium concentration compared to the Cd-intoxicated group.
Animal Model:	Sprague Dawley rats <sup>[2]</sup>								
Dosage:	50 mg/kg/day								
Administration:	p.o. for 4 weeks (three-day break after each four consecutive days of administration)								
Result:	Increased the body weight compared to the Cd-intoxicated group. Decreased in serum creatinine and cadmium concentration compared to the Cd-intoxicated group.								

---

Showed a good radio-density of the skeleton.

---

## REFERENCES

---

- [1]. Miura, T. et al., Ca (II)-EDTA shows antimicrobial activity against periodontopathic bacteria. Journal of Biomedical Science and Engineering, 5, 10-14.
- [2]. Saleh SM, et al., Do Nanoparticles of Calcium Disodium EDTA Minimize the Toxic Effects of Cadmium in Female Rats? Biol Trace Elem Res. 2023 Sep 18.
- [3]. Saxena G, et al., Lead-induced oxidative stress and hematological alterations and their response to combined administration of calcium disodium EDTA with a thiol chelator in rats. J Biochem Mol Toxicol. 2004;18(4):221-33.
- 

**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](mailto:tech@MedChemExpress.com)

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