



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

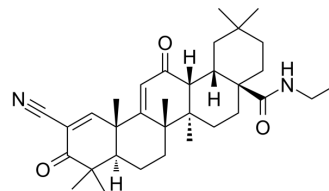
www.szabo-scandic.com

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



CDDO-EA

Cat. No.:	HY-12213
CAS No.:	932730-51-3
Molecular Formula:	C ₃₃ H ₄₆ N ₂ O ₃
Molecular Weight:	518.73
Target:	Keap1-Nrf2
Pathway:	NF-κB
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 16.67 mg/mL (32.14 mM; ultrasonic and warming and heat to 80°C)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM		1.9278 mL	9.6389 mL	19.2779 mL
		5 mM		0.3856 mL	1.9278 mL	3.8556 mL
		10 mM		0.1928 mL	0.9639 mL	1.9278 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.67 mg/mL (3.22 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.67 mg/mL (3.22 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	CDDO-EA is an NF-E2 related factor 2/antioxidant response element (Nrf2/ARE) activator.
IC ₅₀ & Target	Nrf2/ARE ^[1]
In Vitro	<p>CDDO-EA potently activates Nrf2/ARE in a cell culture model of ALS and in the G93A SOD1 mouse model of ALS^[1]. CDDO-EA is a potent inducer of apoptosis in A549 lung cancer cells, as shown both by PARP cleavage and Annexin staining. CDDO-EA is more potent than CDDO itself as inducers of heme oxygenase-1 (HO-1). In RAW264.7 macrophage-like cells, CDDO-EA is 7-fold more potent than CDDO as suppressors of the ability of IFN-γ to induce iNOS^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

In Vivo

The survival analysis shows that G93A mice treated with CDDO-EA, compared to G93A littermate controls, lives significantly longer. CDDO-EA treatment increases the life-span by 20.6 days from 124.05±3.7 days to 144.72±8.1 days (16.6%) ($p < 0.001$). In CDDO-EA-treated G93A mice, the age of death is 141.4±5.2 days and the duration from the age of onset to the age of death is 57.6±7.6 days, which means that the age of death from onset is prolonged by 17.5 days (43%)^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay^[1]

Wild-type and Nrf2^{-/-} mouse embryonic fibroblasts are pre-treated with CDDO-EA or CDDO-TFEA at various concentrations (1, 10 and 100 nM in DMSO) for 18 hours and incubated with 2',7'-Dichlorodihydrofluorescein diacetate (H2DCFDA) for 30 min. Cells are challenged with 250 µM tBHP for 15-30 min and the mean fluorescence intensity for ~10,000 cells is analyzed by FACS flow cytometry using a 480-nm excitation wavelength and a 525-nm emission wavelength^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Administration^[1]

Mice^[1]
G93A SOD1 transgenic familial ALS mice (high copy number) B6SJL background strain (G93A SOD1, B6SJL-TgGur1) are used. G93A transgenic mice are assigned randomly to the control (vehicle, mouse chaw only) and to mouse chaw containing either CDDO-EA or CDDO-TFEA (400 mg/kg of food, n=30 in both groups). This dose corresponds to about 80 mg/kg body weight/day, assuming each mouse consumes 5 grams of food per day. We found mice can tolerate this dose. Treatments started at two different time regimens: 1) "Early" at 30 days of age, about two months prior to symptom onset; 2) "At Onset" from the onset of the phenotype (80-90 days of age). A diet consisting of either 400 mg of CDDO-TFEA per kg of food or 400 mg of CDDO-EA per kg of food, and a control lab diet, are prepared by Purina. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- CNS Neurosci Ther. 2021 Jan;27(1):82-91.
- J Cell Mol Med. 2019 Sep;23(9):6034-6047.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Neymotin A, et al. Neuroprotective effect of Nrf2/ARE activators, CDDO ethylamide and CDDO trifluoroethylamide, in a mouse model of amyotrophic lateral sclerosis. Free Radic Biol Med. 2011 Jul 1;51(1):88-96.
- [2]. Liby K, et al. The synthetic triterpenoids CDDO-methyl ester and CDDO-ethyl amide prevent lung cancer induced by vinyl carbamate in A/J mice. Cancer Res. 2007 Mar 15;67(6):2414-9.

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