



# 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

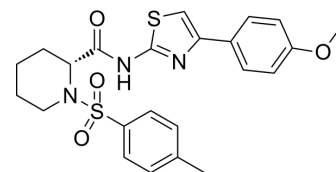
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

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

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

## ML277

<b>Cat. No.:</b>	HY-12343		
<b>CAS No.:</b>	1401242-74-7		
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>25</sub> N <sub>3</sub> O <sub>4</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	471.59		
<b>Target:</b>	Potassium Channel		
<b>Pathway:</b>	Membrane Transporter/Ion Channel		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 56 mg/mL (118.75 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.1205 mL	10.6024 mL	21.2049 mL
	5 mM	0.4241 mL	2.1205 mL	4.2410 mL
	10 mM	0.2120 mL	1.0602 mL	2.1205 mL

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

#### In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (5.30 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

ML277 (CID-53347902) is a potent and selective activator of K(v)7.1 (KCNQ1) potassium channel activator (EC<sub>50</sub>=270 nM), rescues function of pathophysiologically important mutant channel complexes in human induced pluripotent stem cell-derived cardiomyocytes<sup>[1][2]</sup>.

#### In Vitro

ML277 (1 μM) increases the amplitude of KCNQ1 whole-cell and single-channel currents<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Eldstrom J, et al. ML277 regulates KCNQ1 single-channel amplitudes and kinetics, modified by voltage sensor state. J Gen Physiol. 2021 Dec 6;153(12):e202112969.

---

[2]. Mattmann ME, et al. Identification of (R)-N-(4-(4-methoxyphenyl)thiazol-2-yl)-1-tosylpiperidine-2-carboxamide, ML277, as a novel, potent and selective K(v)7.1 (KCNQ1) potassium channel activator. *Bioorg Med Chem Lett*. 2012 Sep 15;22(18):5936-41.

---

**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