



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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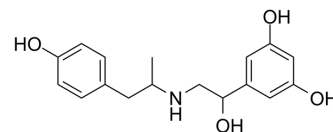
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## Fenoterol

Cat. No.:	HY-B0976
CAS No.:	13392-18-2
Molecular Formula:	C <sub>17</sub> H <sub>21</sub> NO <sub>4</sub>
Molecular Weight:	303.35
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (329.65 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM		3.2965 mL	16.4826 mL	32.9652 mL
		5 mM		0.6593 mL	3.2965 mL	6.5930 mL
		10 mM		0.3297 mL	1.6483 mL	3.2965 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.24 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.24 mM); Clear solution					

### BIOLOGICAL ACTIVITY

Description	Fenoterol (Th-1165), a sympathomimetic agent, is a selective and orally active β <sub>2</sub> -adrenoceptor agonist. Fenoterol is an effective bronchodilator and can be used for bronchospasm associated with asthma, bronchitis and other obstructive airway diseases research <sup>[1][2]</sup> .
In Vitro	Fenoterol (1 μM; pre-incubated 30 minutes) treatment reduces AICAR-induced AMPK activation, NF-κB activation and TNF-α release, and also significantly downregulates the elevated phosphorylation levels of AMPK <sup>[2]</sup> . Fenoterol inhibits lipopolysaccharide (LPS)-induced AMPK activation and inflammatory cytokine production in THP-1 cells <sup>[2]</sup> . Fenoterol is also a potent exosome biogenesis and/or secretion activator in PC cells <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis <sup>[2]</sup>

	Cell Line:	THP-1 cells stimulated with AICAR
	Concentration:	1 $\mu$ M
	Incubation Time:	Pre-incubated 30 minutes
	Result:	Significantly downregulated the elevated phosphorylation levels of AMPK.
<b>In Vivo</b>	Fenoterol (0.7 mg/kg; intraperitoneal injection; twice a day; for 3 weeks) treatment suppresses mechanical allodynia during chronic treatment <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male C57BL/6J mice (6 weeks old) with neuropathy <sup>[3]</sup>
	Dosage:	0.7 mg/kg
	Administration:	Intraperitoneal injection; twice a day; for 3 weeks
	Result:	Alleviated neuropathic allodynia during chronic treatment.

## REFERENCES

- [1]. Amrita Datta, et al. High-throughput screening identified selective inhibitors of exosome biogenesis and secretion: A drug repurposing strategy for advanced cancer. *Sci Rep.* 2018 May 25;8(1):8161.
- [2]. R C Heel, et al. Fenoterol: a review of its pharmacological properties and therapeutic efficacy in asthma. *Drugs.* 1978 Jan;15(1):3-32.
- [3]. Wei Wang, et al. Anti-inflammatory activities of fenoterol through  $\beta$ -arrestin-2 and inhibition of AMPK and NF- $\kappa$ B activation in AICAR-induced THP-1 cells. *Biomed Pharmacother.* 2016 Dec;84:185-190.
- [4]. Nada Choucair-Jaafar, et al. Beta2-adrenoceptor agonists alleviate neuropathic allodynia in mice after chronic treatment. *Br J Pharmacol.* 2009 Dec;158(7):1683-94.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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