



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) 

Dalazatide

Cat. No.:	HY-P3507	
CAS No.:	1081110-69-1	
Molecular Formula:	C ₁₈₄ H ₂₉₆ N ₅₇ O ₅₅ PS ₇	H-{pY}-{AEEA}-Arg-Ser-Cys-Ile-Asp-Thr-Ile-Pro-Lys-Ser-Arg-Cys-Thr-Ala-Phe-Gln-Cys-Lys-His-Ser-Met-Lys-Tyr-Arg-Leu-Ser-Phe-Cys-Arg-Lys-Thr-Cys-Gly-Thr-Cys-NH ₂ (disulfide bridge:Cys5-Cys37,Cys14-Cys30,Cys19-Cys34)
Molecular Weight:	4442.1	
Sequence:	H-{pY}-{AEEA}-Arg-Ser-Cys-Ile-Asp-Thr-Ile-Pro-Lys-Ser-Arg-Cys-Thr-Ala-Phe-Gln-Cys-Lys-His-Ser-Met-Lys-Tyr-Arg-Leu-Ser-Phe-Cys-Arg-Lys-Thr-Cys-Gly-Thr-Cys-NH ₂ (disulfide bridge:Cys5-Cys37,Cys14-Cys30,Cys19-Cys34)	
Sequence Shortening:	H-{pY}-{AEEA}-RSCIDTIPKSRCTAFQCKHSMKYRLSFCRKTGTC-NH ₂ (disulfide bridge:Cys5-Cys37,Cys14-Cys30,Cys19-Cys34)	
Target:	Potassium Channel	
Pathway:	Membrane Transporter/Ion Channel	
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year	

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (5.63 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
1 mM		0.2251 mL	1.1256 mL	2.2512 mL
5 mM		0.0450 mL	0.2251 mL	0.4502 mL
10 mM		---	---	---

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

BIOLOGICAL ACTIVITY

Description

Dalazatide (ShK-186) is a specific Kv1.3 potassium channel peptide inhibitor. Dalazatide can be used in the study of autoimmune diseases such as multiple sclerosis (MS), lupus erythematosus, psoriasis, rheumatoid arthritis, type 1 diabetes and inflammatory bowel disease^{[1][2][3]}.

In Vitro

Dalazatide (ShK-186) (0-1000 pM) blocks the Kv1.3 current in the Ova-specific GFP⁺ effector memory T (Tem) cells in a dose-dependent manner with a K_d of 65 ± 5 pM^[3].
 Dalazatide (0-100 nM; 3 days) inhibits CCR7⁺ T cell proliferation in a dose-dependent manner^[3].
 Dalazatide (100 nM; 30 min) immobilizes effector memory T (Tem) cells at inflammatory sites by suppressing calcium signaling and thereby preventing β1 integrin activation^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

	Cell Proliferation Assay ^[3]
Cell Line:	CCR7 ⁻ T cell ^[3]
Concentration:	0-100 nM
Incubation Time:	3 days
Result:	Inhibited cell proliferation with an IC ₅₀ of 180 ± 37 pM.
In Vivo	<p>Dalazatide (ShK-186) (100 µg/kg; s.c.; once) inhibits delayed-type hypersensitivity and suppresses the in vivo motility and activation of Tem cells in rats^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
Animal Model:	Lewis rats rats, delayed-type hypersensitivity (DTH) model ^[3]
Dosage:	100 µg/kg
Administration:	Subcutaneous injection, once
Result:	Reduced DTH at all time points compared to rats given saline injections. Suppressed the proliferation of the Tem cells.

REFERENCES

- [1]. Olsen C, et al. Dalazatide (ShK-186), a first-in-class peptide inhibitor of Kv1. 3 potassium channels, demonstrates safety, tolerability and proof of concept of efficacy in patients with active plaque psoriasis. *J. Invest. Dermatol.*, 2016, 136(8).
- [2]. Stevens A M, et al. Thu0285 Dalazatide, an Inhibitor of the KV1. 3 Channel on Activated Effector Memory T Cells, Has Immunotherapy Potential in Systemic Lupus Erythematosus. 2016.
- [3]. Matheu MP, et al. Imaging of effector memory T cells during a delayed-type hypersensitivity reaction and suppression by Kv1.3 channel block. *Immunity*. 2008 Oct 17;29(4):602-14.

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