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Diagnostik & molekulare Diagnostik



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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

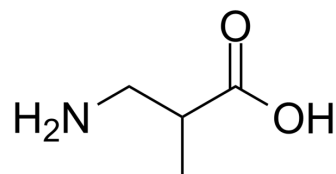
mail@szabo-scandic.com

www.szabo-scandic.com

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

3-Amino-2-methylpropanoic acid

Cat. No.:	HY-W012974
CAS No.:	144-90-1
Molecular Formula:	C ₄ H ₉ NO ₂
Molecular Weight:	103.12
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (969.74 mM; Need ultrasonic)					
	DMSO : 1 mg/mL (9.70 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	9.6974 mL	48.4872 mL	96.9744 mL
			5 mM	1.9395 mL	9.6974 mL	19.3949 mL
10 mM			0.9697 mL	4.8487 mL	9.6974 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (969.74 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	3-Amino-2-methylpropanoic acid could induce browning of white fat and hepatic β -oxidation and is inversely correlated with cardiometabolic risk factors.
IC ₅₀ & Target	Human Endogenous Metabolite
In Vivo	Weight is slightly decreased in the mice by the end of 3-Amino-2-methylpropanoic acid (BAIBA) treatment. Analysis of body composition using MRI demonstrates BAIBA treatment significantly decreases body fat in the mice. Consistent with the effects on thermogenic and β -oxidation gene expression and body weights, analysis with metabolic cages indicates that oxygen consumption (VO ₂) and whole body energy expenditure are increased in the BAIBA treated mice without any significant difference in activity or food intake. The mice are also challenged with an intraperitoneal glucose tolerance test (IPGTT). BAIBA is found to significantly improve the glucose tolerance in the mice as determined by the area under the curve of the IPGTT ^[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration ^[1]

Mice^[1]Six week old mice are either treated with 3-Amino-2-methylpropanoic acid (BAIBA:100 mg/kg/day) or remains untreated (control mice). Their weights are monitored weekly^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Roberts LD, et al. β -Aminoisobutyric acid induces browning of white fat and hepatic β -oxidation and is inversely correlated with cardiometabolic risk factors. Cell Metab. 2014 Jan 7;19(1):96-108.

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