



# 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

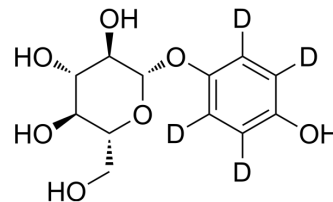
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

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

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

## Arbutin-d<sub>4</sub>

<b>Cat. No.:</b>	HY-N0192S
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>12</sub> D <sub>4</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	276.28
<b>Target:</b>	Tyrosinase; Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Arbutin-d <sub>4</sub> is deuterium labeled Arbutin. Arbutin (β-Arbutin) is a competitive inhibitor of tyrosinase in melanocytes, with Kiapp values of 1.42 mM for monophenolase; 0.9 mM for diphenolase. Arbutin is also used as depigmenting agents[1]. Arbutin is a natural polyphenol isolated from the bearberry plant <i>Arctostaphylos uva-ursi</i> , possesses with anti-oxidant, anti-inflammatory and anti-tumor properties[2][3].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Garcia-Jimenez A, et al. Action of tyrosinase on alpha and beta-arbutin: A kinetic study. *PLoS One.* 2017 May 11;12(5):e0177330.
- [3]. Jiang L, et al. Investigation of the pro-apoptotic effects of arbutin and its acetylated derivative on murinemelanoma cells. *Int J Mol Med.* 2018 Feb;41(2):1048-1054.
- [4]. Nalban N, et al. Arbutin Attenuates Isoproterenol-Induced Cardiac Hypertrophy by Inhibiting TLR-4/NF-κB Pathway in Mice. *Cardiovasc Toxicol.* 2019 Sep 4.

**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