



# 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

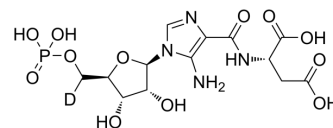
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

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

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

## SAICAR-d

|                           |                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------|
| <b>Cat. No.:</b>          | HY-126585S                                                                                |
| <b>Molecular Formula:</b> | C <sub>13</sub> H <sub>18</sub> DN <sub>4</sub> O <sub>12</sub> P                         |
| <b>Molecular Weight:</b>  | 455.29                                                                                    |
| <b>Target:</b>            | Endogenous Metabolite                                                                     |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease                                                                 |
| <b>Storage:</b>           | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | SAICAR-d is the deuterium labeled SAICAR. SAICAR is an intermediate of de novo purine nucleotide biosynthesis, activates pyruvate kinase isoform M2 (PKM2) in an isozyme-selective manner, with an EC50 of 0.3 mM. SAICAR stimulates PKM2 and promotes cancer cell survival in glucose-limited conditions[1][2].                                                                                                  |
| <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[3].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## REFERENCES

- [1]. Keller KE, et al. SAICAR stimulates pyruvate kinase isoform M2 and promotes cancer cell survival in glucose-limited conditions. *Science*. 2012 Nov 23;338(6110):1069-72.
- [2]. Keller KE, et al. SAICAR induces protein kinase activity of PKM2 that is necessary for sustained proliferative signaling of cancer cells. *Mol Cell*. 2014 Mar 6;53(5):700-9.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-223.

**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