



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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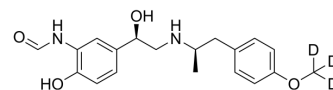
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## Formoterol-d<sub>3</sub>

|                    |                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-B0010AS                                                                                |
| CAS No.:           | 1198353-13-7                                                                              |
| Molecular Formula: | C <sub>19</sub> H <sub>21</sub> D <sub>3</sub> N <sub>2</sub> O <sub>4</sub>              |
| Molecular Weight:  | 347.42                                                                                    |
| Target:            | Adrenergic Receptor; Isotope-Labeled Compounds                                            |
| Pathway:           | GPCR/G Protein; Neuronal Signaling; Others                                                |
| Storage:           | Please store the product under the recommended conditions in the Certificate of Analysis. |



### BIOLOGICAL ACTIVITY

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | Formoterol-d <sub>3</sub> is deuterium labeled Arformoterol. Arformoterol ((R,R)-Formoterol), the (R,R)-enantiomer of Formoterol, is a long-acting $\beta$ 2-adrenergic receptor ( $\beta$ 2-AR) agonist, with a K <sub>d</sub> of 2.9 nM. Arformoterol can be used for the research of chronic obstructive pulmonary disease (COPD)[1][2].                                                                                    |
| In Vitro    | 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> .<br>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]. Cazzola M, et, al. Arformoterol tartrate in the treatment of COPD. *Expert Rev Respir Med*. 2010 Apr;4(2):155-62.
- [3]. Handley DA, et, al. Biological actions of formoterol isomers. *Pulm Pharmacol Ther*. 2002;15(2):135-45.
- [4]. Song W, et, al. Postexposure administration of a [beta]2-agonist decreases chlorine-induced airway hyperreactivity in mice. *Am J Respir Cell Mol Biol*. 2011 Jul;45(1):88-94.

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

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