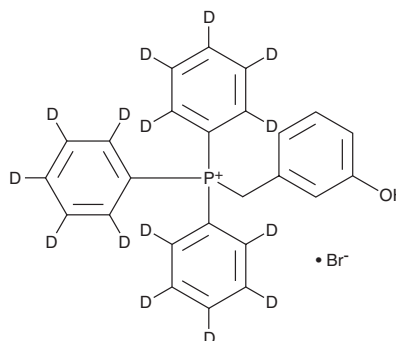


# PRODUCT INFORMATION



**MitoP-d<sub>15</sub>**  
Item No. 19296

**Formal Name:** [(3-hydroxyphenyl)methyl]triphenyl-d<sub>5</sub>-phosphonium, monobromide  
**Synonym:** MitoPhenol-d<sub>15</sub>  
**MF:** C<sub>25</sub>H<sub>7</sub>D<sub>15</sub>OP • Br  
**FW:** 464.4  
**Chemical Purity:** ≥95% (MitoP)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>15</sub>); ≤1% d<sub>0</sub>  
**UV/Vis.:** λ<sub>max</sub>: 295 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

MitoP-d<sub>15</sub> is intended for use as an internal standard for the quantification of MitoP (Item No. 17117) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

MitoP-d<sub>15</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the MitoP-d<sub>15</sub> in the solvent of choice, which should be purged with an inert gas. MitoP-d<sub>15</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MitoP-d<sub>15</sub> in ethanol is approximately 12 mg/ml and approximately 20 mg/ml in DMSO and DMF.

## Description

MitoP is a phenol product produced by the reaction of H<sub>2</sub>O<sub>2</sub> with the ratiometric mass spectrometry probe MitoB (Item No. 17116). MitoB contains a triphenylphosphonium cation component that drives its accumulation in mitochondria where its arylboronic moiety selectively reacts with H<sub>2</sub>O<sub>2</sub> to produce MitoP.<sup>1,2</sup> Quantifying the MitoP/MitoB ratio by LC-MS/MS reflects the mitochondrial matrix H<sub>2</sub>O<sub>2</sub> concentration.

## References

1. Cochemé, H.M., Quin, C., McQuaker, S.J., *et al.* Measurement of H<sub>2</sub>O<sub>2</sub> within living *Drosophila* during aging using a ratiometric mass spectrometry probe targeted to the mitochondrial matrix. *Cell Metab.* **13**(3), 340-350 (2011).
2. Cochemé, H.M., Logan, A., Prime, T.A., *et al.* Using the mitochondria-targeted ratiometric mass spectrometry probe MitoB to measure H<sub>2</sub>O<sub>2</sub> in living *Drosophila*. *Nat. Protoc.* **7**(5), 946-958 (2012).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 • USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM