

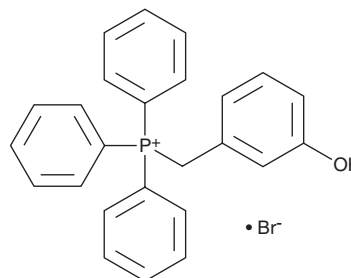
# PRODUCT INFORMATION



## MitoP

Item No. 17117

**CAS Registry No.:** 74597-01-6  
**Formal Name:** [(3-hydroxyphenyl)methyl] triphenyl-phosphonium, monobromide  
**Synonym:** MitoPhenol  
**MF:** C<sub>25</sub>H<sub>22</sub>OP • Br  
**FW:** 449.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 276 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the MitoP in the solvent of choice. MitoP is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MitoP in ethanol is approximately 12 mg/ml and approximately 20 mg/ml in DMSO and DMF.

MitoP is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MitoP should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MitoP has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### 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.

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