

Product Data Sheet

Product Name: MitoP-d15

Cat. No.: GC47684

Chemical Properties

Cas. No. N/A

SMILES OC1=CC=CC(C[P+](C2=C([2H])C([2H])=C([2H])C([2H])=C2[2H])(C3=C([2H])C([2H])=C([2H])C([2H])=C3[2H])C4=C([2H])C([2H])=C([2H])C([2H])=C4[2H])=C1.[Br-]

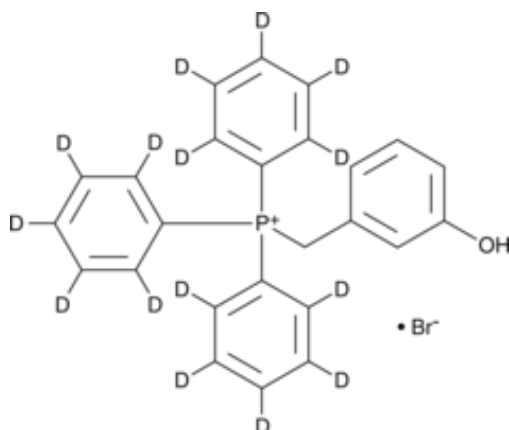
Formula C₂₅H₇D₁₅OP.Br M.Wt 464.4

Solubility DMF: 20 mg/mL, DMSO: 20 mg/mL, DMSO:PBS (pH 7.2) (1:1): 0.5 mg/mL, Ethanol: 12 mg/mL
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

MitoP-d₁₅ is intended for use as an internal standard for the quantification of MitoP by GC- or LC-MS. MitoP is a phenol product produced by the reaction of H₂O₂ with the ratiometric mass spectrometry probe MitoB. MitoB contains a triphenylphosphonium cation component that drives its accumulation in mitochondria where its arylboronic moiety selectively reacts with H₂O₂ to produce

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

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MitoP.^{1,2} Quantifying the MitoP/MitoB ratio by LC-MS/MS reflects the mitochondrial matrix H₂O₂ concentration.

1. CochemÉ, H.M., Quin, C., McQuaker, S.J., et al. Measurement of H₂O₂ within living *Drosophila* during aging using a ratiometric mass spectrometry probe targeted to the mitochondrial matrix. *Cell Metabolism* 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 H₂O₂ in living *Drosophila*. *Nature Protocols* 7(5):946-958 (2012)

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