

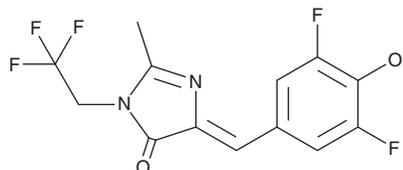
PRODUCT INFORMATION



DFHBI 1T

Item No. 33517

CAS Registry No.: 1539318-36-9
Formal Name: (5Z)-5-[(3,5-difluoro-4-hydroxyphenyl)methylene]-3,5-dihydro-2-methyl-3-(2,2,2-trifluoroethyl)-4H-imidazol-4-one
MF: C₁₃H₉F₅N₂O₂
FW: 320.2
Purity: ≥98%
UV/Vis.: λ_{max}: 363 nm
Ex./Em. Max: 447/501 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

DFHBI 1T is supplied as a crystalline solid. A stock solution may be made by dissolving the DFHBI 1T in the solvent of choice, which should be purged with an inert gas. DFHBI 1T is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DFHBI 1T in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

DFHBI 1T is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DFHBI 1T should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DFHBI 1T has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DFHBI 1T is a fluorescent probe for RNA.^{1,2} It displays excitation/emission maxima of 447/501 nm, respectively, and fluoresces upon binding to RNA aptamers, such as Broccoli, Spinach, or Spinach2. DFHBI 1T has been used to image RNA in live cells.

References

1. Song, W., Strack, R.L., Svensen, N., *et al.* Plug-and-play fluorophores extend the spectral properties of Spinach. *J. Am. Chem. Soc.* **136(4)**, 1198-1201 (2014).
2. Filonov, G.S., Moon, J.D., Svensen, N., *et al.* Broccoli: Rapid selection of an RNA mimic of green fluorescent protein by fluorescence-based selection and directed evolution. *J. Am. Chem. Soc.* **136(46)**, 16299-16308 (2014).

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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