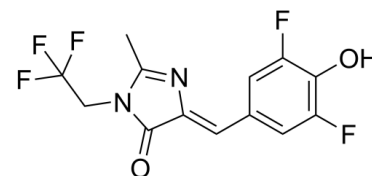


## Data Sheet

<b>Product Name:</b>	DFHBI-1T
<b>Cat. No.:</b>	CS-0033116
<b>CAS No.:</b>	1539318-36-9
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>9</sub> F <sub>5</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	320.21
<b>Target:</b>	DNA Stain
<b>Pathway:</b>	Cell Cycle/DNA Damage
<b>Solubility:</b>	DMSO : 100 mg/mL (ultrasonic)



### BIOLOGICAL ACTIVITY:

DFHBI-1T is a membrane-permeable RNA aptamers-activated fluorescence probe (ex/em=472 nm/507 nm). DFHBI-1T binds to RNA aptamers (Spinach, Spinach2, iSpinach, and Broccoli) and causes specific fluorescence and lower background fluorescence. DFHBI-1T is used to image RNA in live cells<sup>[1][2]</sup>. *In Vitro*: DFHBI-1T (20 μM; for 10 min) increases fluorescence in COS7 cells expressing (CGG)<sub>60</sub>-Spinach2 over DFHBI (20 μM)<sup>[1]</sup>.

Broccoli-DFHBI-1T has ex/em=472 nm/507 nm and Spinach2-DFHBI-1T has ex/em=482 nm/505 nm<sup>[2]</sup>.

### References:

[1]. Wenjiao Song, et al. Plug-and-play fluorophores extend the spectral properties of Spinach. J Am Chem Soc. 2014 Jan 29;136(4):1198-201.

[2]. Grigory S Filonov, et al. Broccoli: rapid selection of an RNA mimic of green fluorescent protein by fluorescence-based selection and directed evolution. J Am Chem Soc. 2014 Nov 19;136(46):16299-308.

### CAIndexNames:

4H-Imidazol-4-one, 5-[(3,5-difluoro-4-hydroxyphenyl)methylene]-3,5-dihydro-2-methyl-3-(2,2,2-trifluoroethyl)-, (5Z)-

### SMILES:

O=C1N(CC(F)(F)F)C(C)=N/C1=C/C2=CC(F)=C(O)C(F)=C2

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

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