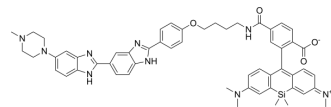


SiR-Hoechst

Cat. No.:	HY-D2220
Molecular Formula:	C ₅₆ H ₅₉ N ₉ O ₄ Si
Molecular Weight:	950.21
Target:	DNA Stain
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

SiR-Hoechst is a far-red fluorescent DNA probe being used widely for time-lapse imaging of living cells. SiR-Hoechst is minimally toxic at concentrations as high as 10-25 μM. SiR-Hoechst induces DNA damage responses and G2 arrest at concentrations well below 1 μM^{[1][2]}.

In Vitro

SiR-Hoechst has some clear advantages: it is selective for DNA; its fluorescence is enhanced upon DNA binding; it is excited by far-red light, avoiding damage caused by the UV light required for traditional Hoechst dyes; and it is compatible with live-cell super-resolution microscopy^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sen O, et al. The live cell DNA stain SiR-Hoechst induces DNA damage responses and impairs cell cycle progression. *Sci Rep.* 2018 May 21;8(1):7898.

[2]. Lukinavičius G, et al. SiR-Hoechst is a far-red DNA stain for live-cell nanoscopy. *Nat Commun.* 2015 Oct 1;6:8497.

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

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