Inhibitors



Product Data Sheet

Janelia Fluor® 646, Tetrazine

Cat. No.:HY-138659CAS No.:2042192-00-5Molecular Formula: $C_{38}H_{35}N_7O_3Si$ Molecular Weight:665.82

Target: Fluorescent Dye

Pathway: Others

Storage: -20°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

BIOLOGICAL ACTIVITY

Description	Janelia Fluor 646, Tetrazine (JF646, Tetrazine) a red fluorescent dye that contains a tetrazine group. JF646, Tetrazine can be used in cellular imaging ^[1] . Janelia Fluor products are licensed under U.S. Pat. Nos. 9,933,417, 10,018,624 and 10,161,932 and other patents from Howard Hughes Medical Institute. Janelia Fluor? 646, Tetrazine is a click chemistry reagent, it contains a Tetrazine group that can undergo an inverse electron demand Diels-Alder reaction (iEDDA) with molecules containing TCO groups.
In Vitro	Excitation maximum=646 nm; emission maximum=664 nm ^[1] . JF646 can serve as ligand for self-labeling tag (such as HaloTag) ^[1] . JF646, Tetrazine is modified by JF646. JF646, a red fluorescent dye, is photostable, membrane-permeable, has a high extinction coefficient ^[2] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Grimm JB, et al. A general method to improve fluorophores for live-cell and single-molecule microscopy. Nat Methods. 2015;12(3):244-250. doi:10.1038/nmeth.3256

[2]. Basu S, et al. FRET-enhanced photostability allows improved single-molecule tracking of proteins and protein complexes in live mammalian cells. Nat Commun. 2018;9(1):2520. Published 2018 Jun 28.

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

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