Janelia Fluor® 646, Azide

Cat. No.: HY-131027

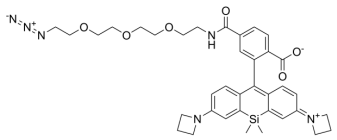
Molecular Formula: $C_{37}H_{44}N_6O_6Si$

Molecular Weight: 696.87

Target: Fluorescent Dye

Pathway: Others

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (143.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4350 mL	7.1749 mL	14.3499 mL
	5 mM	0.2870 mL	1.4350 mL	2.8700 mL
	10 mM	0.1435 mL	0.7175 mL	1.4350 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Janelia Fluor 646, Azide (JF646, Azide) is a red fluorogenic fluorescent dye containing a click chemistry group Azide. Janelia Fluor 646, Azide can be used for live-cell imaging experiments[1][2]. 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, Azide is a click chemistry reagent, it contains an Azide group and can undergo copper-catalyzed azide-alkyne cycloaddition reaction (CuAAc) with molecules containing Alkyne groups. Strain-promoted alkyne-azide cycloaddition (SPAAC) can also occur with molecules containing DBCO or BCN groups.

In Vitro

Maximum absorption wavelength (λabs)= 646 nm, maximum emission wavelength (λem)=664 nm[1].
JF646 can serve as a ligand for self-labeling tag (such as HaloTag)[1].
Janelia Fluor 646, Azide 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, Muthusamy AK, Liang Y, et al. A general method to fine-tune fluorophores for live-cell and in vivo imaging. Nat Methods. 2017;14(10):987-994. doi:10.1038/nmeth.4403.

[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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA