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DATASHEET

Janelia Fluor® 549, free acid

Product overview

Name Janelia Fluor® 549, free acid

Cat No HB8745

Biological description Cell-permeable, yellow fluorescent dye with a free acid reactive group. Used for the synthesis of

Janelia Fluor® HaloTag® and SNAP-Tag® ligands for use in live cell imaging experiments (Grimm et al 2017). Also suitable for flow cytometry. Janelia Fluor® 549 is 2 x brighter than TMR and Cy3 in vitro

and live-cell experiments.

Spectrally similar dyes: Alexa Fluor® 546, Alexa Fluor® 555, BDY TMR-X, Atto 550, CF 555,

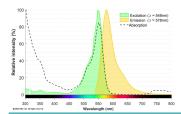
TAMRA, Cyanine 3 JF549, free acid

Alternative names Biological action Dves & stains Description

Yellow dye supplied as a free acid. Suitable for dSTORM, STED, confocal microscopy, live cell

imaging and flow cytometry.

Images



Biological Data

Application notes

#Protocol 1: Measurement of excitation and emission spectra of Janelia Fluor ® 549, free acid

- Janelia Fluor® 549, free acid was prepared at 1μm in PBS.
- Spectra were generated on a Tecan Infinite M200 PRO using the following parameters:
 - Excitation: Recording at 638nm while exciting between 280nm and 610nm
 - Emission: Exciting at 509nm while recording between 535nm and 800nm
 - Absorbance: Measured between 300 and 800nm

Solubility & Handling

Storage instructions Solubility overview Storage of solutions -20°C

Soluble in DMSO (100 mM)

Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Shipping Conditions

Important

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use

Chemical Data

Chemical name 3,6-Di-1-azetidinyl-9-(2,5-dicarboxyphenyl)xanthylium, inner salt trifluoroacetate **Molecular Weight** 568.5

Molecular Weight 568
Chemical structure

SMILES C1CN(C1)C2=CC3=C(C=C2)C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=[N+]5CCC5)C=C4O3)C6=C(C=CC(=C6)C(=O)[O-])C(=C4C=CC(=C6)C(=

O)O.C(=O)(C(F)(F)F)O

Source Synthetic

InChiKey GFUAWSMWTYTASE-UHFFFAOYSA-N

Appearance Purple-grey solid

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References

A general method to improve fluorophores for live-cell and single-molecule microscopy.

Grimm JB et al (2015) Nature methods 12 **PubMedID** 25599551

Synthesis of Janelia Fluor HaloTag and SNAP-Tag Ligands and Their Use in Cellular Imaging Experiments.

Grimm JB et al (2017) Methods in molecular biology (Clifton, N.J.) 1663

PubMedID 28924668