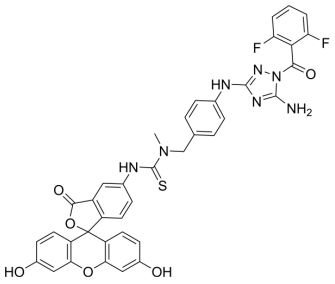
JAK2 JH2 Tracer

Cat. No.:	HY-102055
CAS No.:	2101955-00-2
Molecular Formula:	$C_{38}H_{27}F_2N_7O_6S$
Molecular Weight:	747.73
Target:	JAK
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 83.3 mg/mL (111.40 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.3374 mL	6.6869 mL	13.3738 mL
5 mM	0.2675 mL	1.3374 mL	2.6748 mL
10 mM	0.1337 mL	0.6687 mL	1.3374 mL

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

BIOLOGICAL ACTIVITY

Description

JAK2 JH2 Tracer (Tracer 5) is a fluorescent probe for JAK2 JH2 domain, with a K_d of value 0.2 μM[1][2].

In Vitro

JAK2 JH2 Tracer shows a minimum tracer concentration that retains a satisfactory signal-to-noise ratio is found to be 1.5 pM [1].

?JAK2 JH2 Tracer shows a dissociation constants near 0.2 μM[1].

?JAK2 JH2 Tracer shows a high binding affinity with a K_d value of 0.2 μM for JAK2 JH2 domain by saturation experiments[1].

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

In Vivo

The possibility that mutations within the JAK2 JH2 domain may be associated with pathology, which is associated with a hyperactive kinase and a hematopoietic malignancy phenotype in flies[2].

?Specific mutation in the JAK2 JH2 domain is associated with several myeloproliferative diseases[2].

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

CUSTOMER VALIDATION

- SLAS Discov. 2023 May 4;S2472-5552(23)00036-9.
- Patent. US20220213108A1.
- Patent. US20210395257A1.
- Patent. US20210395251A1.

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REFERENCES

[1]. Ihle JN, Gilliland DG. Jak2: normal function and role in hematopoietic disorders. Curr Opin Genet Dev. 2007 Feb;17(1):8-14.

[2]. Newton AS, et al. JAK2 JH2 Fluorescence Polarization Assay and Crystal Structures for Complexes with Three Small Molecules. ACS Med Chem Lett. 2017 May 17;8(6):614-617.

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