

Produktinformation



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Diagnostik & molekulare Diagnostik



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Screening Libraries

Product Data Sheet

Ibrutinib-biotin

Cat. No.: HY-100342 CAS No.: 1599432-18-4 Molecular Formula: $C_{56}H_{80}N_{12}O_{9}S$ Molecular Weight: 1097.37 Target: Btk

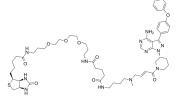
Pathway: Protein Tyrosine Kinase/RTK

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 2 years

> -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO: 50 mg/mL (45.56 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	0.9113 mL	4.5563 mL	9.1127 mL
	5 mM	0.1823 mL	0.9113 mL	1.8225 mL
	10 mM	0.0911 mL	0.4556 mL	0.9113 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (2.28 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.28 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.28 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Ibrutinib-biotin is a probe that consists of Ibrutinib linked to biotin via a long chain linker, extracted from patent WO2014059368A1 Compound 1-5, has an IC ₅₀ of 0.755-1.02 nM for BTK.
IC ₅₀ & Target	IC50: 0.755-1.02 nM (BTK), 1.71-2.29 nM (TEC), 3.66-4.27 nM (BLK), 4.42-5.57 nM (BMX), 5.99-6.92 nM (LCK), 33.8-36.3 nM (Src), 0.187-0.198 μ M (ITK),5.34-4.87 μ M (JAK3) $^{[1]}$
In Vitro	Ibrutinib-biotin (Compound 1-5) is a probe that consists of Ibrutinib linked to biotin via a long chain linker. Ibrutinib is a TEC

family kinase inhibitor. The TEC kinase family is composed of five members, TEC, BTK (Bruton's Tyrosine Kinase), ITK (interleukin-2-inducible T-cell kinase)/EMT/TSK, BMX and TXK/RLK. The TEC family kinases participate in phosphotyrosine-mediated and phospholipid-mediated signaling systems. Many TEC family proteins are abundantly expressed in hematopoietic tissues, and play important roles in the growth and differentiation processes of blood cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Kinase Assay [1]

In this study, assay formats are tested for sensitivity, specificity, range, and to determine most suitable anti BTK Antibody. An aliquot of DOHH2 cell lysate (1 mg/mL) is inhibited with 1 μ M Ibrutinib then labeled with probe (1 μ M). Negative controls: Untreated DOHH2 and Jurkat cell lysates (l mg/mL) are labeled with probe (1 μ M) and Untreated DOHH2 cell lysate. Standard Streptavidin plate (5-pack); Read Buffer T (50 mL), SULFO TAG Goat Anti-mouse (50 μ g); SULFO TAG Goat Anti-rabbit (50 μ g); SULFO TAG streptavidin (50 μ g); MSD Standard Plates; MSD Blocker A; Protease inhibitor cocktail; Positive Control lysates from BTK expressing cell line (DOHH2); Negative Control lysates; Ibrutinib (PCI); probe compound 1-5 (biotinylated probe).

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

CUSTOMER VALIDATION

J Med Chem. 2021 Oct 21.

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REFERENCES

[1]. Betty Y. CHANG, et al. Companion diagnostics for tec family kinase inhibitor therapy. WO 2014059368 A1.

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

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