Pyr3

Cat. No.: HY-108465

CAS No.: 1160514-60-2

Molecular Formula: $C_{16}H_{11}Cl_3F_3N_3O_3$

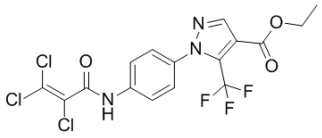
Molecular Weight: 456.63

Target: TRP Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (273.74 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1900 mL	10.9498 mL	21.8996 mL
5 mM	0.4380 mL	2.1900 mL	4.3799 mL
10 mM	0.2190 mL	1.0950 mL	2.1900 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: ≥ 2.08 mg/mL (4.56 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.56 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pyr3 is a selective inhibitor of transient receptor potential canonical channel 3 (TRPC3), with an IC_{50} of 700 nM for TRPC3-mediated Ca^{2+} influx.

IC_{50} & Target

IC50: 700 nM (TRPC3)[1].

In Vitro

Pyr3 selectively and directly inhibits TRPC3 channels among TRPC family members. Application of Pyr3 inhibits TRPC3-

mediated Ca^{2+} influx in a dose-dependent manner with the IC_{50} value of 700 nM. Pyr3 becomes apparent at 0.3 μM, and is almost complete at 3 μM. Interestingly, Ca^{2+} influx is inhibited by Pyr3 in cells co-expressing TRPC3 plus TRPC6 but not in cells coexpressing TRPC1 plus TRPC5. The Ang II-induced NFAT translocation is suppressed by Pyr3, but weakly by Pyr2 in a concentration-dependent manner (IC_{50} value was 0.05 μM for Pyr3 and 2 μM for Pyr2)[1].

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

PROTOCOL

Cell Assay [1]

HEK293 cells or HEK293T cells are used throughout the study. Average time courses of Ca^{2+} responses induced by 100 μM UTP with Pyr3 at indicated concentrations (0.1, 1, 3, 10 μM) in TRPC-transfected HEK293 cells are tested[1].

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

CUSTOMER VALIDATION

- Food Chem Toxicol. 2019 Jul;129:281-290.

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REFERENCES

[1]. Kiyonaka S, et al. Selective and direct inhibition of TRPC3 channels underlies biological activities of a pyrazole compound. Proc Natl Acad Sci U S A. 2009 Mar 31;106(13):5400-5.

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

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