SZABO SCANDIC

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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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# ATP-Red 1

**Cat. No.:** HY-U00451

**CAS No.:** 1847485-97-5

**Molecular Formula:** $C_{34}H_{36}BN_3O_4$

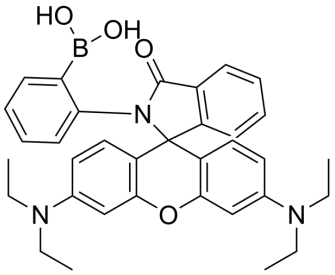
**Molecular Weight:** 561.48

**Target:** Fluorescent Dye

**Pathway:** Others

**Storage:** 4°C, protect from light

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



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 50 mg/mL (89.05 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.7810 mL | 8.9050 mL | 17.8101 mL |
| | 5 mM | 0.3562 mL | 1.7810 mL | 3.5620 mL |
| | 10 mM | 0.1781 mL | 0.8905 mL | 1.7810 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 (4.45 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.45 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

ATP-Red 1 is a multisite-binding switchable fluorescent probe, and can selectively and rapidly responds to intracellular concentrations of ATP in living cells.

**In Vitro**

ATP-Red 1 is a multisite-binding switchable fluorescent probe, and can selectively and rapidly responds to intracellular concentrations of ATP in living cells. The maximum absorption and emission wavelength of are 570/566 nm and 590/585 nm. ATP-Red 1 has good membrane permeability, and in the presence of 5 mM ATP, the fluorescence intensity of ATP-Red 1 increases 5.6-fold. ATP-Red 1 (2.5 μM, 20 min) shows much weaker fluorescence after KCN-induced inhibition of OXPHOS, which results in reduced mitochondrial ATP levels in OSCC cells[1].

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

## PROTOCOL

**Cell Assay** [1]

OSCC Cells are plated in 96-well flat-bottomed plates at $1\times10^5$ cells per well and allowed to grow 3 or 24 h prior to exposure to ATP-Red 1. Then MTT reagent is added for 4 h at 37 °C and DMSO (100 μL/well) is further incubated with cells for 15 min after removing the medium. The absorbance at 570 nm and 690 nm (background signal) is recorded in a Spectra Max M2 microplate reader. The following formula is used to calculate the viability of cell growth: Cell viability (%) = (mean of A value of treatment group / mean of A value of control) × 100[1].

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

## CUSTOMER VALIDATION

- Cells. 2023, 12(1), 68.

See more customer validations on www.MedChemExpress.com

## REFERENCES

[1]. Wang L, et al. A Multisite-Binding Switchable Fluorescent Probe for Monitoring Mitochondrial ATP Level Fluctuation in Live Cells. Angew Chem Int Ed Engl. 2016 Jan 26;55(5):1773-6



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