# Elexacaftor

**Cat. No.:** HY-111772

**CAS No.:** 2216712-66-0

**Molecular Formula:** $C_{26}H_{34}F_3N_7O_4S$

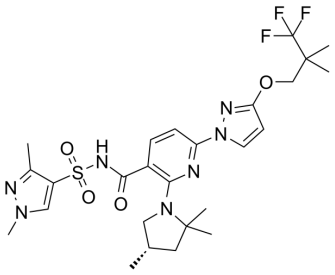
**Molecular Weight:** 597.65

**Target:** CFTR; Autophagy

**Pathway:** Membrane Transporter/Ion Channel; Autophagy

**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 : 125 mg/mL (209.15 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.6732 mL | 8.3661 mL | 16.7322 mL |
| | 5 mM | 0.3346 mL | 1.6732 mL | 3.3464 mL |
| | 10 mM | 0.1673 mL | 0.8366 mL | 1.6732 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 (3.48 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.48 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Elexacaftor (VX-445, Compound 1) is a modulator of cystic fibrosis transmembrane conductance regulator (CFTR). Elexacaftor (VX-445, Compound 1) facilitates the processing and trafficking of CFTR to increase the amount of CFTR at the cell surface[1].

**$IC_{50}$ & Target**

CFTR[1].

**In Vitro**

Elexacaftor (VX-445) is a next-generation cystic fibrosis transmembrane conductance regulator (CFTR) corrector designed to restore Phe508del CFTR protein function. Elexacaftor (VX-445) has the potential to treat cystic fibrosis. VX-445-Tezacaftor-VX-770 significantly improves Phe508del CFTR protein processing, trafficking, and chloride transport to a greater extent than any two of these agents in dual combination[2].

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

## CUSTOMER VALIDATION

- Am J Respir Crit Care Med. 2021 Aug 11.
- J Clin Invest. 2021 Aug 16;131(16):e150398.
- JCI Insight. 2020 Sep 17;5(18):e139983.
- Cells. 2022, 11(24), 4096.
- Structure. 2022 May 31;S0969-2126(22)00185-X.

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## REFERENCES

[1]. Alexander Russell Abela, et al. MODULATOR OF THE CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR , PHARMACEUTICAL COMPOSITIONS , METHODS OF TREATMENT , AND PROCESS FOR MAKING THE MODULATOR. US 20180162839 A1.

[2]. Keating D, et al. VX-445-Tezacaftor-VX-770 in Patients with Cystic Fibrosis and One or Two Phe508del Alleles. N Engl J Med. 2018 Oct 25;379(17):1612-1620.



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