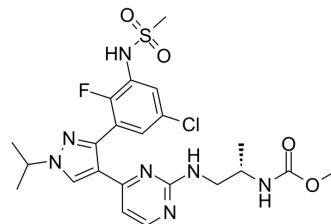


## Encorafenib

<b>Cat. No.:</b>	HY-15605		
<b>CAS No.:</b>	1269440-17-6		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>27</sub> ClFN <sub>7</sub> O <sub>4</sub> S		
<b>Molecular Weight:</b>	540.01		
<b>Target:</b>	Raf		
<b>Pathway:</b>	MAPK/ERK Pathway		
<b>Storage:</b>	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 (92.59 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.8518 mL	9.2591 mL	18.5182 mL
	5 mM	0.3704 mL	1.8518 mL	3.7036 mL
	10 mM	0.1852 mL	0.9259 mL	1.8518 mL

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

#### In Vivo

- Add each solvent one by one: 50% PEG300 >> 50% saline  
Solubility: 16.67 mg/mL (30.87 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline  
Solubility: 2.5 mg/mL (4.63 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Encorafenib (LGX818) is a highly potent BRAF inhibitor with selective anti-proliferative and apoptotic activity in cells

	expressing BRAF <sup>V600E</sup> (EC <sub>50</sub> =4 nM).
<b>IC<sub>50</sub> &amp; Target</b>	IC50: 0.3 nM (B-Raf <sup>V600E</sup> )
<b>In Vitro</b>	Encorafenib (LGX818) is a potent drug that can prevent diseases or disorders associated with abnormal or deregulated kinase activity, particularly diseases or disorders that involve abnormal activation of B-Raf <sup>[1]</sup> . Encorafenib (LGX818) (10 nM) suppresses the ERK/MAPK pathway and displays marked inhibition of pERK in A375, G361 and SK-MEL-24 cells. 10 nM Encorafenib (LGX818) treatment for 12 days potently inhibits colony formation in A375, G361 and SK-MEL-24 cells, but not in RPMI7951 and C8161 cells. Encorafenib (LGX818) treatment induces a steady increase in the β-catenin level in G361 cells over time <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Sci Transl Med. 2018 Jul 18;10(450):eaaq1093.
- Sci Adv. 2019 Aug 14;5(8):eaav8463.
- Redox Biol. October 2021, 102110.
- Cancer Res. 2022 May 18;canres.4152.2021.
- Proc Natl Acad Sci U S A. 2020 Dec 8;117(49):31105-31113.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Compounds and compositions as protein kinase inhibitors . Patent WO 2011025927 A1

[2]. Li Z, et al. Encorafenib (LGX818), a potent BRAF inhibitor, induces senescence accompanied by autophagy in BRAFV600E melanoma cells. Cancer Lett. 2016 Jan 28;370(2):332-44.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA