Product Data Sheet

p53 Activator 7

Cat. No.: HY-148416 CAS No.: 2849340-59-4 Molecular Formula: $C_{27}H_{32}F_{3}N_{4}OP$ Molecular Weight: 516.54

Target: MDM-2/p53 Pathway: **Apoptosis**

Storage: 4°C, sealed storage, away from moisture and light

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

SOLVENT & SOLUBILITY

In	٧	it	ro

DMSO: 100 mg/mL (193.60 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9360 mL	9.6798 mL	19.3596 mL
	5 mM	0.3872 mL	1.9360 mL	3.8719 mL
	10 mM	0.1936 mL	0.9680 mL	1.9360 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 (4.84 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.84 mM); Clear solution

BIOLOGICAL ACTIVITY

p53 Activator 7 is a p53 mutation Y220C (MDM-2/p53) activator with an EC₅₀ of 104 nM. p53 Activator 7 can bind to p53 mutant and restore its ability to bind DNA (WO2022213975A1; Example B-1)[1]. p53 Activator 7 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC₅₀ & Target

EC50: 104 nM (p53 mutation Y220C)^[1]

In Vitro

The p53 protein, referred to as the "guardian of the human genome", is a tetrameric transcription factor that prevents mutation to the genome by regulating the expression of a subgroup of target genes. Although biologically active as a homotetramer, each p53 monomer is comprised of 393 amino acids, and is divided into five key regulatory domains: the transactivation domain (TAD), proline-rich region (PR), the DNA binding domain (DBD), the oligomerization domain (OD),



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

REFERENCES

[1]. Sujing LI, et al. Compounds targeting y220c mutant of p53. WO2022213975A1.

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

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