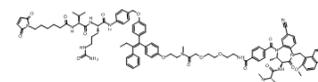


PAC

Cat. No.:	HY-112100
CAS No.:	2158322-33-7
Molecular Formula:	C ₉₄ H ₁₀₇ N ₁₃ O ₁₆
Molecular Weight:	1674.93
Target:	Estrogen Receptor/ERR; PROTAC-linker Conjugate for PAC
Pathway:	Others; Antibody-drug Conjugate/ADC Related; PROTAC
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (59.70 mM); Need ultrasonic					
	H ₂ O : < 0.1 mg/mL (insoluble)					
		Solvent Concentration	Mass			
	Preparing Stock Solutions			1 mg	5 mg	10 mg
		1 mM		0.5970 mL	2.9852 mL	5.9704 mL
5 mM			0.1194 mL	0.5970 mL	1.1941 mL	
	10 mM		0.0597 mL	0.2985 mL	0.5970 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (1.49 mM); Suspended solution; Need ultrasonic					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (1.49 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	PAC, consists the ADCs linker and PROTACs, conjugated to an antibody. PAC extracts from patent WO2017201449A1, compound LP2. PAC conjugated to an antibody is a more marked estrogen receptor-alpha (ERα) degrader compared to PROTAC (without Ab).
IC ₅₀ & Target	Estrogen receptor-alpha (ERα) ^[1]
In Vitro	Treatment of HER2 expressing cells with HER2 antibody containing PAC Anti-HER2(Endox-XIAP) results in a marked decreased Estrogen Receptor-alpha (ERα) levels with an IC ₅₀ of 132 ng/mL. The PROTAC-Antibody Conjugate (PAC) molecules comprise an antibody conjugated via a linker (L1) to a PROTAC, wherein the PROTAC comprises an ubiquitin E3 ligase binding group ("E3LB"), a linker ("L2") and a protein binding group ("PB"). The following sections

describe the components that comprise the PAC. To obtain a PAC having potent efficacy and a desirable therapeutic index, the following components are provided. 1. Antibody (Ab): The antibody portion of a PAC can target a cell that expresses an antigen whereby the antigen specific PAC is delivered intracellularly to the target cell, typically through endocytosis. While PACs that comprise an antibody directed to an antigen that is not found on the cell surface may result in less specific intracellular delivery of the PROTAC portion into the cell, the PAC may still undergo pinocytosis. 2. Linkers (L1): A "linker" (L1) is a bifunctional or multifunctional moiety that can be used to link one or more PROTAC moieties (D) to an antibody (Ab) to form a PAC. In some embodiments, PACs can be prepared using a L1 having reactive functionalities for covalently attaching to the PROTAC and to the antibody. 3. PROTAC(D) [1].

PROTOCOL

Kinase Assay [1]

Syntheses of a PAC:

A. Chemical Synthesis of a PROTAC:

- i. Attachment of a Linker (L2) to an E3 Ligase Binding Group (E3LB).
- ii. Attachment of a protein binding moiety (PB) to an E3LB via a Linker (L2).

B. Preparation of L1-PROTAC:

- iii. Attachment of Linker L1 to PROTAC.

C. Preparation of PAC:

- iv. Attachment of Antibody (Ab) to PROTAC via Linker L1 [1].

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

REFERENCES

[1]. Thomas Pillow, et al. Protac antibody conjugates and methods of use. WO2017201449A1.

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

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