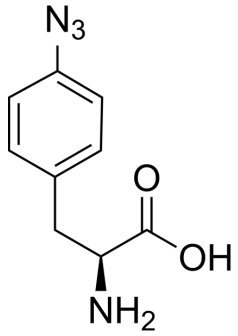
4-Azido-L-phenylalanine

Cat. No.:	HY-16714		
CAS No.:	33173-53-4		
Molecular Formula:	$C_9H_{10}N_4O_2$		
Molecular Weight:	206.2		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (242.48 mM; ultrasonic and adjust pH to 13 with NaOH)
H_2O : 25 mg/mL (121.24 mM; ultrasonic and adjust pH to 11 with NaOH)
DMSO : 5 mg/mL (24.25 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 80°C)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	4.8497 mL	24.2483 mL	48.4966 mL
5 mM	0.9699 mL	4.8497 mL	9.6993 mL
10 mM	0.4850 mL	2.4248 mL	4.8497 mL

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

BIOLOGICAL ACTIVITY

Description

4-Azido-L-phenylalanine is an unnatural amino acid, which is used as an effective vibrational reporter of local protein environments. 4-Azido-L-phenylalanine is a click chemistry reagent, it contains an Azide group and can undergo copper-catalyzed azide-alkyne cycloaddition reaction (CuAAc) with molecules containing Alkyne groups. Strain-promoted alkyne-azide cycloaddition (SPAAC) can also occur with molecules containing DBCO or BCN groups.

In Vitro

In cell-free protein synthesis (CFPS) method, 0.9-1.7 mg/mL of modified soluble super-folder green fluorescent protein (sfGFP) containing either 4-Azido-L-phenylalanine or p-propargyloxy-l-phenylalanine (pPaF) accumulate in the CFPS solutions[1].

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

CUSTOMER VALIDATION

- Nanomicro Lett. 2023 Aug 12;15(1):197.
- Emerg Microbes Infect. 2021 Dec;10(1):1609-1625.
- Cell Chem Biol. 2021 Mar 26;S2451-9456(21)00145-8.
- Elife. 2021 Jun 1;10:e67789.
- Bioconjug Chem. 2019 Dec 18;30(12):2998-3006.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Albayrak C, et al. Cell-free co-production of an orthogonal transfer RNA activates efficient site-specific non-natural amino acid incorporation. Nucleic Acids Res. 2013 Jun;41(11):5949-63.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA