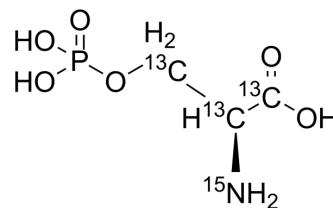


O-Phospho-L-serine-¹³C₃,¹⁵N

Cat. No.:	HY-15129S
CAS No.:	2734706-69-3
Molecular Formula:	¹³ C ₃ H ₈ ¹⁵ N O ₆ P
Molecular Weight:	189.04
Target:	mGluR; Endogenous Metabolite
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	O-Phospho-L-serine- ¹³ C ₃ , ¹⁵ N is the ¹³ C- and ¹⁵ N-labeled O-Phospho-L-serine. O-Phospho-L-serine is the immediate precursor to L-serine in the serine synthesis pathway, and an agonist at the group III mGluR receptors (mGluR4, mGluR6, mGluR7, and mGluR8); O-Phospho-L-serine also acts as a weak antagonist for mGluR1 and a potent antagonist for mGluR2[1].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Kang HJ, et al. Determinants of endogenous ligand specificity divergence among metabotropic glutamate receptors. *J Biol Chem.* 2015 Jan 30;290(5):2870-8.
- [3]. Kang HJ, et al. Selectivity and evolutionary divergence of metabotropic glutamate receptors for endogenous ligands and G proteins coupled to phospholipase C or TRP channels. *J Biol Chem.* 2014 Oct 24;289(43):29961-74.
- [4]. Bailey TJ, et al. The inhibitor of phagocytosis, O-phospho-L-serine, suppresses Müller glia proliferation and cone cell regeneration in the light-damaged zebrafish retina. *Exp Eye Res.* 2010 Nov;91(5):601-12.

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

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