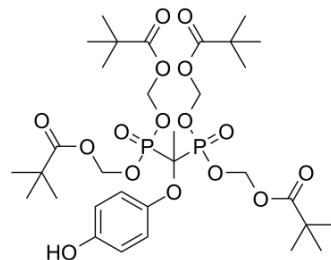


L-690488

Cat. No.:	HY-101076
CAS No.:	142523-14-6
Molecular Formula:	C ₃₂ H ₅₂ O ₁₆ P ₂
Molecular Weight:	754.69
Target:	Phosphatase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	L-690488 is a prodrug of L-690330 and is a selective inositol monophosphatase (IMPase) inhibitor. L-690488 has more effective cell penetration than L-690330 ^{[1][2]} .
IC₅₀ & Target	Inositol monophosphatase (IMPase) ^{[1][2]}
In Vitro	<p>The effects of L-690488 are studied in cholinergically (carbachol)-stimulated rat cortical slices and Chinese hamster ovary cells stably transfected with the human muscarinic m1 receptor (m1 CHO cells). The EC₅₀ values of L-690488 are 3.7 μM and 1.0 μM in rat cortical slices and m1 CHO cells, respectively). The time course and maximum accumulation of [³H] CMP-PA in L-690488-treated m1 CHO cells is similar to lithium but L-690488 is again much more potent (EC₅₀ values of 3.5 μM and 0.52 mM for L-690488 and lithium, respectively)^[1].</p> <p>L-690488 attenuates the carbachol-induced elevation of inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate in m1 CHO cells. That these effects of L-690488 on the phosphatidylinositol (PI) cycle are indeed due to inositol depletion^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Atack JR, et al. Effects of L-690,488, a prodrug of the bisphosphonate inositol monophosphatase inhibitor L-690,330, on phosphatidylinositol cycle markers. *J Pharmacol Exp Ther.* 1994 Jul;270(1):70-6.

[2]. Chen X, et al. Stimulatory effect of lithium on glucose transport in rat adipocytes is not mediated by elevation of IP1. *Am J Physiol.* 1998 Aug;275(2):E272-7.

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

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