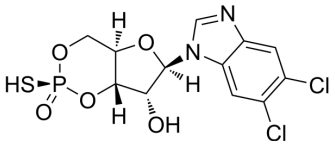
Sp-5,6-DCl-cBIMPS

Cat. No.:	HY-137638
CAS No.:	120912-54-1
Molecular Formula:	$C_{12}H_{11}Cl_2N_2O_5PS$
Molecular Weight:	397.17
Target:	PKA
Pathway:	Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Sp-5,6-DCl-cBIMPS is a potent and specific cAMP-dependent protein kinases (cAMP-PK) activator. Sp-5,6-DCl-cBIMPS stimulates insulin release. Sp-5,6-DCl-cBIMPS inhibits U46619-induced activation of Rho, Gq and G12/G13 in platelets[1][2][3].
In Vitro	Sp-5,6-DCl-cBIMPS (0.005, 0.05, 0.5 mM; 60 min) stimulates insulin release from isolated pancreatic islets in a dose and time-dependent manner[2]. Sp-5,6-DCl-cBIMPS (0.005, 0.05, 0.5 mM; 60 min) increases glucose (8.5 mM)-stimulated insulin release[2]. Sp-5,6-DCl-cBIMPS (100 μM; 20 min) inhibits U46619-induced Rho activation in wild-type mouse platelets, and inhibits U46619-induced activation of both Gq and G12/G13 in human platelets[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[3]

Cell Line:	Wild-type mice, Human platelets
Concentration:	100 μM
Incubation Time:	20 min
Result:	Strongly suppressed U46619-induced Rho activation in wild-type, and inhibited U46619-induced activation of both Gq and G12/G13.

REFERENCES

[1]. Sandberg M, et al. Characterization of Sp-5,6-dichloro-1-beta-D-ribofuranosylbenzimidazole- 3',5'-monophosphorothioate (Sp-5,6-DCl-cBiMPS) as a potent and specific activator of cyclic-AMP-dependent protein kinase in cell extracts and intact cells. Biochem J. 1991 Oct 15;279 (Pt 2)(Pt 2):521-7.

[2]. Laychock SG. Sp-5,6-dichloro-1-beta-D-ribofuranosylbenzimidazole-3',5'-cyclic monophosphorothioate is a potent stimulus for insulin release. Endocr Res. 1993;19(2-3):113-22.

[3]. Gratacap MP, et al. Differential regulation of Rho and Rac through heterotrimeric G-proteins and cyclic nucleotides. J Biol Chem. 2001 Dec 21;276(51):47906-13.

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

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