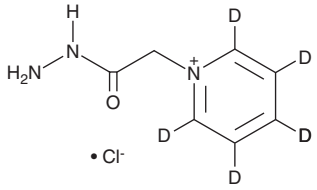
PRODUCT INFORMATION

Girard's Reagent P-d_5

Item No. 22005

CAS Registry No.:	1505505-87-2
Formal Name:	1-(2-hydrazinyl-2-oxoethyl)-pyridinium-2,3,4,5,6-d_5, monochloride
Synonyms:	Girard P hydrazine-d_5, GirP-d_5, GP-d_5
MF:	$C_7H_5D_5N_3O \bullet Cl$
FW:	192.7
Chemical Purity:	≥95% (Girard's Reagent P)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_5); ≤1% d_0
UV/Vis.:	λ_{max}: 260 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Girard's reagent P-d_5 is intended for use as an internal standard for the quantification of Girard's reagent P (Item No. 601541) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Girard's reagent P-d_5 is supplied as a crystalline solid. A stock solution may be made by dissolving the Girard's reagent P-d_5 in the solvent of choice, which should be purged with an inert gas. Girard's reagent P-d_5 is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Description

Girard's reagent P is a cationic hydrazine reagent.[1] It has been used as a derivatization reagent to quantify glycans, oxysterols, and 5-methylcytosine derivatives.[2-4]

References

1. Wheeler, O.H. The Girard Reagents. *Chem. Rev.* **62(3)**, 205–221 (1962).
2. Wang, C., Wu, Z., Yuan, J., *et al.* Simplified quantitative glycomics using the stable isotope label Girard's reagent P by electrospray ionization mass spectrometry. *J. Proteme Res.* **13(2)**, 372-384 (2014).
3. Griffiths, W.J., Abdel-Khalik, J., Crick, P.J., *et al.* Sterols and oxysterols in plasma from Smith-Lemli-Opitz syndrome patients. *J. Steroid Biochem. Mol. Biol.* **169**, 77-87 (2017).
4. Tang, Y., Xiong, J., Jiang, H.-P., *et al.* Determination of oxidation products of 5-methylcytosine in plants by chemical derivatization coupled with liquid chromatography/tandem mass spectrometry analysis. *Anal. Chem.* **86(15)**, 7764-7772 (2014).

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