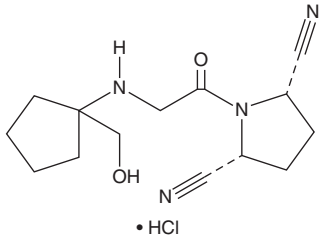
PRODUCT INFORMATION

DPPI 1c (hydrochloride)

Item No. 30211

CAS Registry No.:	866396-70-5
Formal Name:	(2R,5S)-*rel*-1-[2-[[1-(hydroxymethyl) cyclopentyl]amino]acetyl]-2,5-pyrrolidinedicarbonitrile, monohydrochloride
MF:	$C_{14}H_{20}N_4O_2 \bullet HCl$
FW:	312.8
Purity:	≥98%
Supplied as:	A 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

DPPI 1c (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the DPPI 1c (hydrochloride) in the solvent of choice, which should be purged with an inert gas. DPPI 1c (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. It is also soluble in water. The solubility of DPPI 1c (hydrochloride) in ethanol, DMSO, and water is approximately 25, 100, and 50 mM, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

DPPI 1c is an inhibitor of dipeptidyl peptidase 4 (DPP-4; IC_{50} = 104 nM in an enzyme assay).[1] It decreases plasma glucose levels by 46 to 67% in an oral glucose challenge in fasted, diabetic KK/H1J mice when administered at doses ranging from 0.3 to 5 mg/kg. DPPI 1c decreases plasma DPP-4 activity by approximately 50% and increases plasma glucagon-like peptide 1 (GLP-1) levels in KK/H1J mice.

Reference

1. Wright, S.W., Ammirati, M.J., Andrews, K.M., *et al. cis*-2,5-Dicyanopyrrolidine inhibitors of dipeptidyl peptidase IV: Synthesis and in vitro, in vivo, and X-ray crystallographic characterization. *J. Med. Chem.* **49(11)**, 3068-3076 (2006).

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