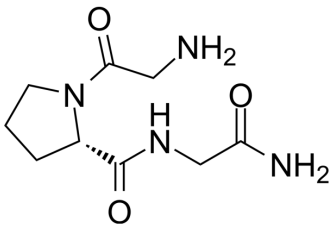
H-Gly-Pro-Gly-NH2

Cat. No.:	HY-P4292
CAS No.:	141497-12-3
Molecular Formula:	$C_9H_{16}N_4O_3$
Molecular Weight:	228.25
Sequence:	H-Gly-Pro-Gly-NH2
Sequence Shortening:	GPG-NH2
Target:	HIV; Amino Acid Derivatives
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

H-Gly-Pro-Gly-NH2 is a tripeptide that inhibits HIV-1 replication. H-Gly-Pro-Gly-NH2 inhibits the activity of HIV-1 III_B and HIV-2 ROD with EC_{50} values of 35 μM and 30 μM, respectively. H-Gly Pro Gly NH2 inhibits HIV-1 replication in vitro by interfering with capsid formation. H-Gly Pro Gly NH2 has antiviral activity and can be used for virus research[1][2][3].

IC_{50} & Target

HIV (IIIB)	HIV-2 (ROD)
35 μM (EC50)	30 μM (EC50)

In Vitro

H-Gly-Pro-Gly-NH2 (5, 20 and 100 μM) shows antiviral activities in HUT78 cells infected with HIV-1 SF-2[1].
H-Gly-Pro-Gly-NH2 (100 μM) destroys the capsid of HIV-1 virus particles in ACH-2 cells[1].
Antiviral activity of H-Gly-Pro-Gly-NH2 against clinical HIV-1[2]

	T215Y/F	K70R	M184V	L74V	T69D
Mean IC_{50} (μM)	16	17	20	12	17

	K103N	Y181C	G48V	L90M	V82A/T	M46I/L
Mean IC_{50} (μM)	13	21	16	18	16	17

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Höglund S, et al. Tripeptide interference with human immunodeficiency virus type 1 morphogenesis. Antimicrob Agents Chemother. 2002 Nov;46(11):3597-605.

[2]. Andersson E, et al. No cross-resistance or selection of HIV-1 resistant mutants in vitro to the antiretroviral tripeptide glycyl-prolyl-glycine-amide[J]. Antiviral research, 2004, 61(2): 119-124.

[3]. Balzarini J, et al. Obligatory involvement of CD26/dipeptidyl peptidase IV in the activation of the antiretroviral tripeptide glycylprolylglycinamide (GPG-NH(2)). Int J Biochem Cell Biol. 2004 Sep;36(9):1848-59.

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