

Mas7

## Chemical Properties

CAS No.:	145854-59-7
Formula:	C67H124N18O15
Molecular Weight:	1421.81
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Amphiphilic peptide Mas7, a structural analogue of mastoparan is a known activator of heterotrimeric Gi-proteins and its downstream effectors.
In vitro	Mas7 produces several biological effects in different cell types. The effect of Mas7 on endogenous mono-ADP-ribosyltransferase activity is in the micromolar range with a maximal activation of 205% over the basal. In pertussis treated plasma membranes, it is found that the effect of Mas7 on endogenous mono-ADP-ribosyltransferase is partially blocked, which suggests the involvement of G-proteins, such as Gi or G0[1]. Mas7 is a basic tetradecapeptide isolated from isp venom, which activates guanine nucleotide-binding regulatory proteins (G-proteins) and stimulates apoptosis. In smooth muscle cells, Mas7 leads to an increase in the perfusion pressure. Vascular contraction is induced by Mas7. The vasoconstriction triggered by mas-7 exhibited a slower increase compared to that simulated by phenylephrine or vasopressin[2]. Exposure of hippocampal neurons to a low dose of Mas-7 increases dendritic spine density and spine head width in a time-dependent manner. Additiolly, Mas-7 enhances postsyptic density protein-95 (PSD-95) clustering in neurites and activates Gαo sigling, increasing the intracellular Ca <sup>2+</sup> concentration[3].

## Solubility Information

Solubility	H2O: Soluble ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.703 mL	3.517 mL	7.033 mL
5 mM	0.141 mL	0.703 mL	1.407 mL
10 mM	0.07 mL	0.352 mL	0.703 mL
50 mM	0.014 mL	0.07 mL	0.141 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Bavec A, et al. Novel features of amphiphilic peptide Mas7 in signalling via heterotrimeric G-proteins. J Pept Sci. 2004 Nov;10(11):691-9.

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