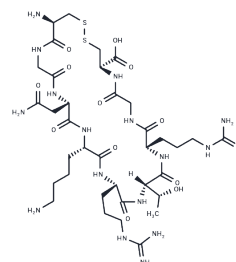


## LyP-1

## Chemical Properties

CAS No. :	454487-07-1
Formula:	C <sub>36</sub> H <sub>65</sub> N <sub>17</sub> O <sub>12</sub> S <sub>2</sub>
Molecular Weight:	992.14
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	LyP-1 is a cyclic peptide comprised of 9 amino acids, designed to target and bind selectively to p32 receptors that are overexpressed in a range of tumor-associated cells.
Targets(IC50)	Complement System
In vivo	LyP-1 (8 weeks) significantly reduces plaque formation and occupation rates in treated groups, alongside increasing the apoptotic rate of macrophages from hypoxic plaques, compared to a control peptide[1]. Furthermore, for optical imaging purposes, LyP-1 is tagged with a near-infrared fluorophore, Cy5.5. In an experiment involving tumor-bearing BALB/C mice, Cy5.5-LyP-1 (0.8 nmol) was administered via the middle phalanges of the upper extremities at intervals following 4T1 cell inoculation. Recorded fluorescence intensities at days 3, 7, 14, and 21 post-inoculation were progressively higher, evidencing incremental accumulation and demonstrating rates significantly surpassing those in the contralateral lymph nodes (LNs). This co-localization of Cy5.5-LyP-1 with LYVE-1 in LNs indicates a lymphatics-specific binding affinity of the LyP-1 peptide[1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0079 mL	5.0396 mL	10.0792 mL
5 mM	0.2016 mL	1.0079 mL	2.0158 mL
10 mM	0.1008 mL	0.504 mL	1.0079 mL
50 mM	0.0202 mL	0.1008 mL	0.2016 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Fan Zhang, et al. Imaging tumor-induced sentinel lymph node lymphangiogenesis with LyP-1 peptide. *Amino Acids*. 2012 Jun;42(6):2343-51.

Ningning Song, et al. Recent progress in LyP-1-based strategies for targeted imaging and therapy. *Drug Deliv*. 2019 Dec;26(1):363-375.

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