

LyP-1

Cat. No.:	HY-P2526
CAS No.:	454487-07-1
Molecular Formula:	C ₃₆ H ₆₅ N ₁₇ O ₁₂ S ₂
Molecular Weight:	992.14
Sequence Shortening:	CGNKRTRGC (Disulfide bridge: Cys1-Cys9)
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	LyP-1 is a cyclic 9-amino acids tumor homing peptide and selectively bind to p32 receptors overexpressed in various tumor-associated cells ^[1] .
In Vivo	<p>LyP-1 (8 weeks) shows a remarkable reduction in plaque formation and plaque occupation rates in the LyP-1-treated group. In addition, a higher apoptotic rate in macrophages released from hypoxic plaques is observed after the treatment of LyP-1 when compared to control peptide^[1].</p> <p>The LyP-1 peptide is labeled with a near-infrared fluorophore (Cy5.5) for optical imaging. At days 3, 7, 14 and 21 after inoculation with 4T1 cells, tumor-bearing BALB/C mice is injected Cy5.5-LyP-1 (0.8 nmol) through the middle phalanges of the upper extremities of the tumor-bearing mice. The fluorescence intensities were 0.024, 0.038, 0.048 and 0.106×10⁶ photon/cm²/sec respectively at days 3, 7, 14 and 21 after tumor cell inoculation, which are 1.02, 1.63, 2.04, and 4.52-fold higher than in the contralateral LNs. Cy5.5-LyP-1 staining in LNs co-localized with LYVE-1, suggesting lymphatics-specific binding of LyP-1 peptide^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Ningning Song, et al. Recent progress in LyP-1-based strategies for targeted imaging and therapy. Drug Deliv. 2019 Dec;26(1):363-375.
- [2]. Fan Zhang, et al. Imaging tumor-induced sentinel lymph node lymphangiogenesis with LyP-1 peptide. Amino Acids. 2012 Jun;42(6):2343-51.

Caution: Product has not been fully validated for medical applications. For research use only.

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