

## KYL peptide

Cat. No.:	HY-P2264
CAS No.:	676657-00-4
Molecular Formula:	C <sub>74</sub> H <sub>108</sub> N <sub>14</sub> O <sub>17</sub>
Molecular Weight:	1465.73
Sequence Shortening:	KYLPYWPVLSL
Target:	Ephrin Receptor
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder    -80°C    2 years -20°C    1 year  * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

### BIOLOGICAL ACTIVITY

<b>Description</b>	KYL peptide, an antagonistic peptide, selectively targets EphA4 receptor (IC <sub>50</sub> :4.22 μM, Kd:1.3 μM). KYL peptide binds to the ligand-binding domain of EphA4, effectively alleviates Aβ-induced synaptic dysfunction and synaptic plasticity defects in AD mice. KYL peptide can promote nerve regeneration after injury and modulating immune responses <sup>[1][2][3]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	EphA4 4.22 μM μM (IC <sub>50</sub> )	EphA4 1.30 μM (Ki)
<b>In Vitro</b>	KYL peptide blocks the extracellular ligand-binding domain of EphA4, abolishes the Aβ-stimulated EphA4 tyrosine phosphorylation <sup>[2]</sup> . KYL peptide abolishes the Aβ-triggered reduction of dendritic spines in cultured hippocampal neurons <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### REFERENCES

- [1]. Wu B, et.al. HTS by NMR of combinatorial libraries: a fragment-based approach to ligand discovery. Chem Biol. 2013 Jan 24;20(1):19-33.
- [2]. Lamberto I, et, al. Distinctive binding of three antagonistic peptides to the ephrin-binding pocket of the EphA4 receptor. Biochem J. 2012 Jul 1;445(1):47-56.
- [3]. Fu AKY, et, al. Blockade of EphA4 signaling ameliorates hippocampal synaptic dysfunctions in mouse models of Alzheimer's disease. Proc Natl Acad Sci U S A. 2014 Jul 8;111(27):9959-64.

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

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