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DATASHEET

TAT-D1 Peptide

Product overview

Name	TAT-D1 Peptide
Cat No	HB9975
Biological action	Antagonist
Purity	>95%
Description	Selective D ₁ -D ₂ heteromer antagonist

Biological Data

Biological description	Selective Dopamine D ₁ -D ₂ heteromer antagonist which occludes the interaction site between the two receptors to inhibit D ₁ -D ₂ heteromer expression and function. Alleviates behavioural despair symptoms and exerts antidepressant-like effects. Active in vivo.
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Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in PBS (1 mg/ml), and in DMSO
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Molecular Weight	3472.97
Molecular Formula	C ₁₄₄ H ₂₅₇ N ₅₇ O ₄₃

References

A peptide targeting an interaction interface disrupts the dopamine D1-D2 receptor heteromer to block signaling and function in vitro and in vivo: effective selective antagonism.

Hasbi A et al (2014) FASEB journal : official publication of the Federation of American Societies for Experimental Biology 28
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Modulation and functions of dopamine receptor heteromers in drugs of abuse-induced adaptations.

Andrianarivo A et al (2019) Neuropharmacology 152
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The dopamine D1-D2 receptor heteromer exerts a tonic inhibitory effect on the expression of amphetamine-induced locomotor sensitization.

Shen MY et al (2015) Pharmacology, biochemistry, and behavior 128
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Effects of Mitochondrial-Derived Peptides (MDPs) on Mitochondrial and Cellular Health in AMD.

Mitochondria-derived peptide SHLP2 regulates energy homeostasis through the activation of hypothalamic neurons.

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