

[D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P

Cat. No.:	HY-103544
CAS No.:	96736-12-8
Molecular Formula:	C ₇₉ H ₁₀₉ N ₁₉ O ₁₂
Molecular Weight:	1516.83
Sequence:	{d-Arg}-Pro-Lys-Pro-{d-Phe}-Gln-{d-Trp}-Phe-{d-Trp}-Leu-Leu-NH ₂
Sequence Shortening:	{d-Arg}-PKP-{d-Phe}-Q-{d-Trp}-F-{d-Trp}-LL-NH ₂
Target:	JNK; Interleukin Related; Bombesin Receptor
Pathway:	MAPK/ERK Pathway; Immunology/Inflammation; GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

[D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P, a Substance P derivative, is a biased agonist toward neuropeptide and chemokine receptors. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P activates G12. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P binds to IL-8 and GRP receptors. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P inhibits ERK-2 activation, activates JNK activity. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P stimulates an increase in neutrophil migration and Ca²⁺ mobilization. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P is also a bombesin antagonist, and inhibits the growth of small cell lung cancer^{[1][2][3]}

REFERENCES

[1]. Jarpe MB, et al. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]Substance P acts as a biased agonist toward neuropeptide and chemokine receptors. J Biol Chem. 1998 Jan 30;273(5):3097-104.

[2]. Woll PJ, Rozengurt E. [D-Arg1,D-Phe5,D-Trp7,9,Leu11]substance P, a potent bombesin antagonist in murine Swiss 3T3 cells, inhibits the growth of human small cell lung cancer cells in vitro. Proc Natl Acad Sci U S A. 1988 Mar;85(6):1859-63.

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

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