

Rev03
Update: Feb,10,2022

DATASHEET

Substance P, Free Acid

Cat. No.: RP10185

Overview

Synonyms	SPOH
Description	The conformation of substance P (free acid) (SPOH) has been investigated in dimethylsulfoxide (DMSO), water and dipalmitoylphosphatidylcholine (DPPC) bilayers by two-dimensional NMR and restraint molecular dynamics simulations. The observed NOE patterns for substance P (free acid) in these media are very much different from each other. The conformation of substance P (free acid) in DPPC bilayers is characterized by gamma-bends at Pro ⁴ , Gln ⁶ and Phe ⁷ , which are stabilized by hydrogen bonding between Lys ³ CO-->Gln ⁵ NH, Gln ⁵ CO-->Phe ⁷ NH and Gln ⁶ CO-->Phe ⁸ NH, respectively. The absence of biological activity in SPOH has been attributed to the absence of any helix like structure at the central residues and absence of any interresidue interaction with C-terminal OH group, in DPPC bilayers, a feature shown to be an important prerequisite for SP and SP agonists to bind to the NK1 tachykinin receptor.
Cas No	71977-09-8
Sequence	{ARG}{PRO}{LYS}{PRO}{GLN}{GLN}{PHE}{PHE}{GLY}{LEU}{MET}
Sequence Shortening	RPKPQQFFGLM
Molecular Formula	C ₆₃ H ₉₇ N ₁₇ O ₁₄ S ₁
Molecular Weight	1348.7

Properties

Purity	> 95%
Form	Lyophilized
Storage	Store at -20°C.