DATASHEET
Version: 2016-08-18

Substance P, Free Acid

Cat. No.: RP10185

Size: 5 mg

Alias: SPOH

Description:

The conformation of substance P (free acid) (SPOH) has been investigated in dimethylsulfoxide (DMSO), water and dipalmitoylphosphotidylcholine (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^3CO-->Gln^5NH, Gln^5CO-->Phe^7NH and Gln^6CO-->Phe^8NH, 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 NKI tachykinin receptor.

Cas No: 71977-09-8

Sequence (one-letter code):

RPKPQQFFGLM

Sequence (three-letter code):

{ARG}{PRO}{LYS}{PRO}{GLN}{GLN}{PHE}{PHE}{GLY}{LEU}{MET}

Formula: $C_{63}H_{97}N_{17}O_{14}S_1$

Molecular Weight: 1,348.7

Purity: > 95%

Storage:

Store at -20°C.

Note:

*For Non-Clinical Research Use Only *