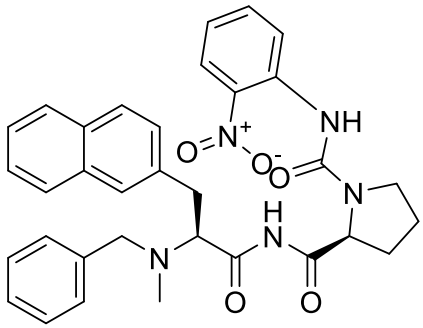
Product data sheet

MedKoo Cat#: 574400 Name: SDZ NKT 343 CAS#: 180046-99-5 Chemical Formula: $C_{33}H_{33}N_5O_5$ Exact Mass: 579.2482 Molecular Weight: 579.66	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
SDZ NKT 343 is a highly selective human tachykinin NK1 receptor antagonist that antagonizes SP-induced Ca2+ efflux in vitro and inhibits mechanical hyperalgesia in vivo.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	57.97	100
Ethanol	57.97	100

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.73 mL	8.63 mL	17.25 mL
5 mM	0.35 mL	1.73 mL	3.45 mL
10 mM	0.17 mL	0.86 mL	1.73 mL
50 mM	0.03 mL	0.17 mL	0.35 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

To be determined

In vivo study

1. Campbell EA, Gentry C, Patel S, Kidd B, Cruwys S, Fox AJ, Urban L. Oral anti-hyperalgesic and anti-inflammatory activity of NK(1) receptor antagonists in models of inflammatory hyperalgesia of the guinea-pig. Pain. 2000 Sep;87(3):253-263. doi: 10.1016/S0304-3959(00)00288-8. PMID: 10963905.
2. Rees H, Sluka KA, Urban L, Walpole CJ, Willis WD. The effects of SDZ NKT 343, a potent NK1 receptor antagonist, on cutaneous responses of primate spinothalamic tract neurones sensitized by intradermal capsaicin injection. Exp Brain Res. 1998 Aug;121(3):355-8. doi: 10.1007/s002210050468. PMID: 9746141.

7. Bioactivity
Biological target:

SDZ NKT 343 is a highly selective human tachykinin NK1 receptor antagonist (IC50 values are 0.62 and 451 nM for human and rat receptors, respectively) that displays >130-fold selectivity over human NK2 and NK3 receptors.

In vitro activity

Product data sheet

To be determined

In vivo activity

The findings of this study suggest that the blockade of neurokinin 1 receptors by SDZ NKT 343 selectively reduces sensitized responses to innocuous mechanical stimuli without impacting responses to noxious mechanical stimuli.In a model of capsaicin-induced sensitization of spinothalamic tract cells in monkeys, there was a significant reversal of the increased response to brushing, while the heightened background activity and response to pressure remained unaffected after SDZ NKT 343 treatment.

Reference: Exp Brain Res. 1998 Aug;121(3):355-8. https://pubmed.ncbi.nlm.nih.gov/9746141/