

## Catalog # 10-1480 HC-067047

883031-03-6

2-Methyl-1-[3-(4-morpholinyl)propyl]-5-phenyl-N-[3-trifluoromethyl)phenyl]-1H-pyrrole-3-carboxamide Lot # S101183

Potent reversible and selective TRPV4 antagonist. Active at mouse, human and rat TRPV4,  $IC_{50} = 17$ , 48 and 133 nM respectively. Also inhibits the endogenous TRPV4-mediated response to  $4\alpha$ -PDH ( $IC_{50} = 22$  nM). Selective for TRPV4 over TRPV1, TRPV2, TRPV3 and TRPM8 channels<sup>1</sup>. Increases functional bladder capacity and reduces micturition frequency in mice and rats with cystitis<sup>1</sup>. Inhibits brain edema in middle cerebral artery occlusion mice<sup>2</sup>. Induces an increase in core body temperature accompanied by increased oxygen consumption in Wistar rats<sup>3</sup>. Active *in vivo*.

- 1) Everaerts et al. (2010), Inhibition of the cation channel TRPV4 improves bladder function in mice and rats with cyclophosphoamide-induced cystitis; Proc. Natl. Acad. Sci. USA, **107** 19084
- 2) Jie et al. (2015), Blockage of transient receptor potential vanilloid 4 inhibits brain edema in middle cerebral artery occlusion mice; Front. Cell. Neurosci., **9** 141
- 3) Vizin et al. (2015), TRPV4 activates autonomic and behavioural warmth-defence responses in Wistar rats; Acta Physiol. (Oxf.), **214** 275

## **PHYSICAL DATA**

Molecular Weight: 471.51

Solubility:

Molecular Formula:  $C_{26}H_{28}F_3N_3O_2$ Purity: 98% by TLC NMR: (Conforms)

DMSO (up to 50 mg/ml), or Ethanol (up to 10 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO or ethanol may be stored at -20°C for up to 3 months.

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