

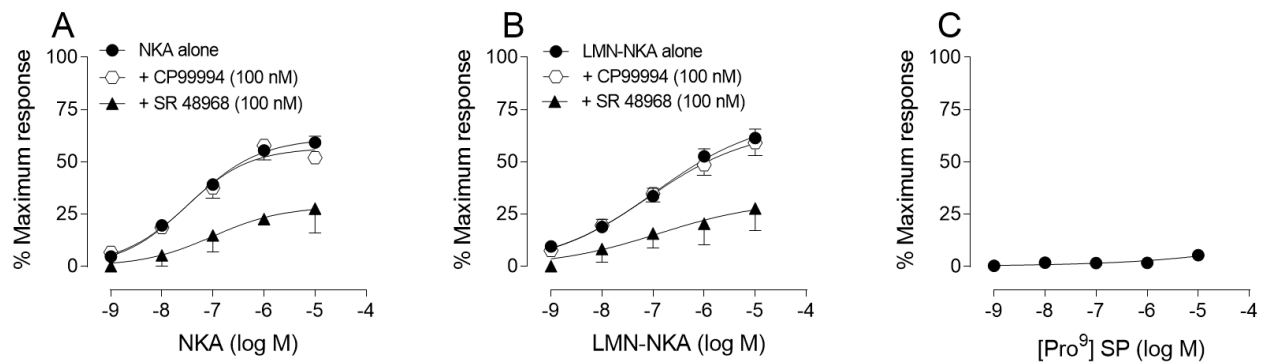
Gender-related differences of tachykinin NK₂ receptor expression and activity in
human colonic smooth muscle

Stelina Drimousis, Irit Markus, Tim V Murphy, D Shevy Perera, Kim-Chi Phan-Thien,
Li Zhang, Lu Liu

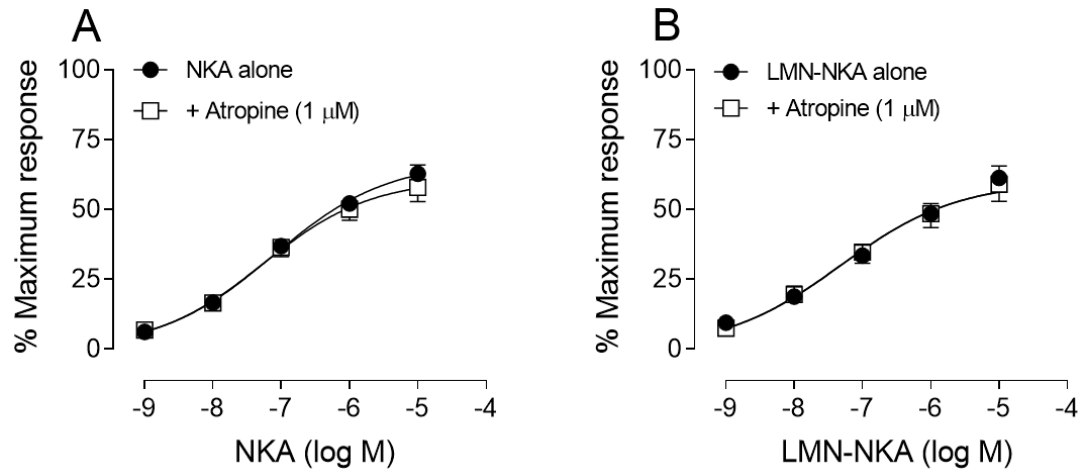
The Journal of Pharmacology and Experimental Therapeutics

Supplemental Table 1. Forward (FP) and reverse (RP) primers of human target and housekeeping genes used in real-time PCR studies. Primer melting temperatures and amplification efficiency scores are shown. Size of products are indicated as base pairs (bp).

Gene	NCBI No.	Primer	Sequence (5'-3')	Melting temp. (°C)	Efficiency (%)	Size (bp)
Phospholipase C, β 1	NM_182734	hPLC β 1 FP	CCT CGT GAA CAT CTC CCA TT	81.3	89	178
		hPLC β 1 RP	AAT ACG CCC TTC TGG AGT GA	81.3		
Phospholipase C, β 2	NM_001284297	hPLC β 2 FP	GTC TCT GCT CAA CCC TGT CC	82.7	110	213
		hPLC β 2 RP	AAC TTC CCA AAG CGA GTA TCC	82.3		
Phospholipase C, β 3	NM_000932	hPLC β 3 FP	GGA GGA GGT AGG GCT TGA GA	84.2	124	152
		hPLC β 3 RP	GCT TTT TGG GGT CTG TCT GT	84.0		
Phospholipase C, β 4	NM_001172646	hPLC β 4 FP	CTG GAA GGG CGG ATA GTT TG	80.1	84	156
		hPLC β 4 RP	CAT TGG ACT GAC GTT GTT GG	80.2		
Guanine nucleotide-binding protein G(q) subunit α	NM_002072	hGNAQ FP	GGA CAG GAG AGA GTG GCA AG	80.8	85	195
		hGNAQ RP	GTG CAT GAG CCT TAT TGT GC	81.0		
Guanine nucleotide-binding protein G subunit α 11	NM_002067	hGNA11 FP	CCA CTG CTT TGA GAA CGT GA	83.2	90	185
		hGNA11 RP	GCA GGT CCT TCT TGT TGA GG	83.0		
Guanine nucleotide-binding protein G subunit α 14	NM_004297	hGNA14 FP	ATT CGT GCC TAC CCA ACA AG	82.0	85	220
		hGNA14 RP	GTT GTG ACA CTC AGC CAG GA	81.7		
Glyceraldehyde-3-phosphate dehydrogenase (GAPDH)	NM_001289745	hGAPDH FP	GCC AAA AGG GTC ATC ATC TC	82.4	83	176
		hGAPDH RP	AGT CCT TCC ACG ATA CCA AAG T	82.6		



Supplemental Fig. 1. Contractile responses of human colonic circular muscle to A) the endogenous NK₂ receptor ligand neurokinin A (NKA), B) the selective NK₂ receptor agonist [Lys⁵,MeLeu⁹, Nle¹⁰]NKA(4-10) (LMN-NKA) and C) the selective NK₁ receptor agonist [Pro⁹] substance P ([Pro⁹] SP). Data are expressed as % ACh maximum response (n = 5 - 7). The responses to NKA and LMN-NKA were also determined in the presence of the selective NK₁ antagonist CP99994 and NK₂ antagonist SR 48968 (data from 4 males and 3 females with no observation of gender differences for both CP99994 and SR 48968).



Supplemental Fig. 2. The effect of atropine on the contractile responses of human colonic circular muscle to A) the endogenous NK₂ receptor ligand neurokinin A (NKA) and B) the selective NK₂ receptor agonist [Lys⁵,MeLeu⁹,Nle¹⁰]NKA(4-10) (LMN-NKA). Data are expressed as % ACh maximum response (n = 5 - 7).