

A

Atta cephalotes TRP 1 -----MLFSSVLFLAVWTSSFAEESNDAAS-----AKRAPM-GFQGMRG
Drosophila melanogaster TRP 1 MRPLSGLIALALLLLLTAAPSSAADTETESSGSPLTPGAEEPRRVVKRAPTTSSFIGMRG
Acromyrmex echinatior TRP 1 R-----MLFSSVLFLAVWTSSFAEESNDAAS-----AKRAPM-GFQGMRG

Atta cephalotes TRP 41 KKDLIPTVAEHNELSKR-TLVNF-----QGMRGKKDYL
Drosophila melanogaster TRP 61 KKDEEHDTSEGWNWLGSGPDPIDYADEEADSSYAENG-----
Acromyrmex echinatior TRP 42 KKDLIPTIAEHNELSKR-TLVNFQDKDSSASEIEDNLLHDEFDKRAPKGFGQGMRGKKDYL

Atta cephalotes TRP 73 IPDFEDSYFLEDYDKRAPMGFQGMRGKKAILEDEY-----
Drosophila melanogaster TRP 97 -----RRLKKAPLAFVGLRGKKFIPINNRLSDVLQSLEERLRDSLLQDFDFDRV
Acromyrmex echinatior TRP 101 TPDFEDSYFLEDYNKRAPMGFQGMRGKKAILEDEY-----

Atta cephalotes TRP 108 -----YKRAPMGFQGMRGKKKSLEEVLSEIEKRAASLGFYGTRGKKTYIFEYPQDYEK
Drosophila melanogaster TRP 146 AGRDGSAVGKRAPTGFTGMRGKRP-----
Acromyrmex echinatior TRP 136 -----YKRAPMGFQGMRGKKKSLEEMLSEIEKRAA-LGFYGTRGKKTYVFEYPQDYEK

Atta cephalotes TRP 160 RLLAMEFQDMHNKIKEEWEKRAMS-GFQGMRGKKALYDEIEELEKRTLMGFQGMRGKKDG
Drosophila melanogaster TRP 170 ALLAGDDAEADEATELQQKRAPVNNSFVGMRGKKDVSH-QHYKRALSDSYDLRGKQQR
Acromyrmex echinatior TRP 187 RLLAMDFQDMHNKIKEEWEKRAPM-GFQGMRGKKALYDEIEELEKRALMGFQGMRGKKDG

Atta cephalotes TRP 219 FENYIDYYIDDPDMDFDKRASMSFQGMRGKKDT-----DK
Drosophila melanogaster TRP 228 FADFN-----SKFVAVRGKKSDLEGNGVGIGDDHEQALVHPWLYLWGK
Acromyrmex echinatior TRP 246 FENYIDYYIDDPDMDFDKRAPMSFQGMRGKKDT-----DK

Atta cephalotes TRP 254 RAPMGFQGMRGKRSVGQRFEPSTNFGPLNEYQGMGNRRHILASCQVEKRSPFRYFEMRGK
Drosophila melanogaster TRP 272 RAPNGFILGMRGKRPAL-----
Acromyrmex echinatior TRP 281 RAPMGFQGMRGKRSVGQRFDPNMNFGSLNEYQGRSNRRHILASCQVEKRSPFRYFEMRGK

Atta cephalotes TRP 314 KNPRWELRGMFVGVRGKKWANAPYEDNSPFIRVLNDTERIGMDGDSPTTLGNRLADSQLV
Drosophila melanogaster TRP 288 -----
Acromyrmex echinatior TRP 341 KNPRWELRGMFVGVRGKKWANAPYEDNSPFIRVLNDTERIGMDGDSPTTLGNRLADSQLI

Atta cephalotes TRP 374 SNIILVAILFIASFIFYAYLNMLVVFIKYQAVYQNVKEKLNLSSLSTQTFKNLLERITLNAM
Drosophila melanogaster TRP 288 -----
Acromyrmex echinatior TRP 401 SNIYVAVLFITSFIFHVYLMAKYACSIYQVSSNLSEERRERKIN--FFSFHTNVQNTF---

Atta cephalotes TRP 434 YHFQKFLLNITLFYVFTLHATHRAYLNVFSIFVICVDILYSYCNNCFYSRY
Drosophila melanogaster TRP 288 -----FE
Acromyrmex echinatior TRP 456 -----FSAF-----YMQC-IIIFKN--

B

	Tachykinin-related peptide 1, TRP-1	TRP-2	TRP-3	TRP-4	TRP-5
<i>D. melanogaster</i>	APTSSFIGMR-NH ₂	APLAFVGLR-NH ₂	APTGFTGMR-NH ₂	APVNSFVGMR-NH ₂	APNGFLGMR-NH ₂
<i>A. cephalotes</i>	APM-GFQGMR-NH ₂	APMFGFQGMR-NH ₂	APM-GFQGMR-NH ₂	APM-GFQGMR-NH ₂	APM-GFQGMR-NH ₂
	TRP-1a			TRP-4a	
<i>A. cephalotes</i>	TLVNFQGMR-NH ₂			TRP-4b	
				ASMSFQGMR-NH ₂	

C

F(x)GLM-NH₂ motif

Homo sapiens Neurokinin A
 Neurokinin B
 Endokinin A/B
 Endokinin C
 Substance P
 Neuropeptide K DADSSIEKVALLKALYGHGQISHKRHKTDVFVGLM-NH₂
 Neuropeptide γ DAGHGQISHKRHKTDVFVGLM-NH₂

DMHDFVGLM-NH₂
 HKTDVFVGLM-NH₂
 GKASQFFGLM-NH₂
 KKAYQLEHTFQGLL-NH₂
 RPKPQFFGLM-NH₂
 DAGHGQISHKRHKTDVFVGLM-NH₂