Longipina: a Novel Antimicrobial Peptide from *Acutisoma longipes* (GONYLEPTIDAE; OPILIONES).

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The arthropods defend themselves against invading microorganisms through the cellular and humoral responses. Cellular reactions are carried by hemocytes, which immobilize the invaders by phagocytosis and/or encapsulation. Humoral response is performed by constitutive and inducible molecules that may be involved in recognition or direct antibacterial action. The objective was to identify antimicrobial peptides (AMP) in harvestmen. The hemolymph was collected from unchallenged animals. Hemocytes were separate from the plasma by centrifugation, both were washed in sodium citrate buffer solution and submitted to acid extraction. The samples were submitted to a pre-purification step in Sep-Pak C18 cartridges eluted with different acetonitrile concentrations. All the fractions were concentrated in a vacuum centrifuge, reconstituted in TFA 0.046% and loaded into a semi-preparative C18 column for the second purification step. The active fractions were then loaded into an analytical C18 column. The absorbance was monitored at 225 nm and the antibacterial activity was determined by liquid growth inhibition assay. The fractions have their purity and masses valued by mass spectrometry in a MALDI/TOF and ESI-MS devices. A pure fraction from plasma was submitted by “de novo” sequencing using a Q-TOF spectrometer and to Edman degradation. Thirteen fractions inhibited the growth of the Gram-positive bacteria *Micrococcus luteus* A270. One fraction from plasma, showed on single molecule, named Longipina (MW= 2,125 Da), composed by 18 residues: SGYLPGKEYVYKYKGKVF. Its high isoeletric point (9.5) is similar to other antimicrobial peptides. The spectrum of action of this molecule is under analysis.