



**Supplementary figure 1.** (a) A diagram of the 908 bp fragment of the VSSC gene encoding the  $\alpha$ -subunit of a sodium channel in *P. humanus corporis*, containing the three mutations, M815I (ATG / ATT), T917I (ACA / ATA) and L920F (CTT / TTT). (b) Electropherograms of the wild-type sequence in the region of interest obtained from a body louse that was raised on a rabbit in the laboratory.

**Supplementary figure 2.** Genotyping of the mutation site (T917I) using melting curve analysis. (a) Melting curves: in green, the homozygous mutant (TT); in blue, wild-type (CC); in red, the compound heterozygote (CT); and in azure the negative control. (b) Derivative melting peaks obtained from the melting curves. (c) Electropherograms of the (T917I) mutation site in 3 samples. Top, the wild-type allele bearing a C., Middle, heterozygote with two alleles, one wild-type and one mutated (CT). Bottom, the mutated allele showed a T at the same position.

