



G-43

Gene expression profile of a Moxoto male prostate gland

Rocha, C.R.C.¹, D. Brito², R. Maranguape², C. Rocha¹, D. Lourenço¹, H. Yamuri¹, A.X. Eloy³,
H. Castelletti¹, J.L. Lima Filho¹

*(1) Laboratório de Imunopatologia Keizo Asami (LIKA) and Biochemistry Department - UFPE,
Av. Prof. Moraes Rego, 1235, Recife-PE-Brazil; (2) Universidade Vale do Acaraú 3
EMBRAPA-CNPC.Sobral-CE-Brazil.*

Moxoto is a remaining goat native breed from northeast region of Brazil. The certified pure Moxoto breed now exists only a few Brazilian northeastern farm flocks and at the livestock for breed conservation maintained by Empresa Brasileira de Pesquisa Agropecuária Caprinos e Ovinos (EMBRAPA-CNPC, Sobral-CE). Our work aimed to characterize the transcriptome of several tissues from Moxoto due to its strong rusticity which gives the breed the ability to survive and reproduce in adverse conditions of climate and very dry grazing ground. The present study reports the first transcriptome of a Moxoto male prostate gland defined using Applied Biosystems SOLiD sequence data and CLC Bio® bioinformatic analysis. 35 million raw sequence reads were assembled into 532 single contiguous sequences using as reference the NCBI Bovine genome sequence, the duplication tax into this cDNA library was 29.39%. The minimum length of the contigs was 200bp and maximum length 906 bp. The average contigs length was 286 bp. 532 Moxoto prostate putative proteins were characterized based on homology. We found expressed several classes of proteins such as cytochromes, ATPases, heat shock proteins, Na⁺/K⁺ transporters, kinases, dehydrogenases, mutases and others. Overall, the present dataset provide information for future genomic, proteomic, and metabolomic explorations that will ultimately contribute for genetic knowledge and conservation of this Brazilian native goat pure breed threatened of extinction. We also expect that our data could give useful information for programs of goat genetic improvement for reproductive efficiency worldwide.