

Publication Title:

Quantification of leukocyte genomic 5-methylcytosine levels reveals epigenetic plasticity in healthy adult cloned cattle

Publication Abstract:

Successful somatic cell nuclear transfer (SCNT) requires epigenetic reprogramming of a differentiated donor cell nucleus. Incorrect reprogramming of epigenetic markings such as DNA methylation is associated with compromised prenatal development and postnatal abnormalities. Clones that survive into adulthood, in contrast, are assumed to possess a normalized epigenome corresponding to their normal phenotype. To address this point, we used capillary electrophoresis to measure 5-methylcytosine (5mC) levels in leukocytes