

RESEARCH PROJECT

 Institute
Life Technologies

Development of a scqmRT-PCR for biomarkers involved in AGE formation

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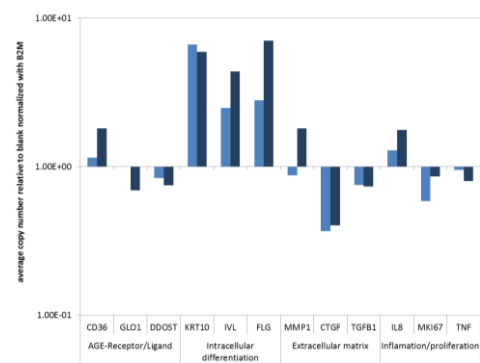
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Description One effect of diabetes is the glycation of proteins resulting in the formation of Advance Glycated End (AGE) products, which lead to premature aging of the skin. In order to identify the anti-AGE potential of alpine plant extracts extracted by the Phyto Group at HES-SO Valais on a diabetic skin model a method for gene expression analysis called scqmRT-PCR was developed.

ScqmRT-PCR is a method for gene expression analysis which allows the amplification of several marker genes in parallel requiring only very little starting material. This is achieved by a preamplification of the cDNA for several cycles with all PCR primers of all marker genes at once before performing a qPCR for all the markers individually. The scqmRT-PCR was developed and validated for 12 biomarkers for AGE receptors, proliferation, intracellular differentiation, extracellular matrix and inflammation as well as two reference genes.



qPCR machine in the Molecular Biology lab



Positive effect of a plant extract on intracellular differentiation markers in keratinocyte cells

URL <http://itv.hevs.ch/>

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