



## Selection and use of reference genes in mouse mammary glands

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**ABSTRACT.** Obtaining quantitative data concerning gene expression is important for understanding milk synthesis in mammary glands. Quantitative real-time PCR (qRT-PCR) is an efficient tool to calculate gene expression; however, it is necessary to find valid reference genes for normalization of qRT-PCR data. We applied the geNorm software to eight commonly used reference genes to identify the most stable and optimal genes for the mouse mammary gland. Based on this analysis, HPRT, RPL and GAPDH are the most appropriate reference genes for data normalization. We tested the expression of the  $\alpha$ -lactalbumin and fatty acid synthase genes using these three reference genes, both normalized and non-normalized. The normalized mRNA expression ratio was significantly different from the non-normalized ratio. We recommend the use of these three reference genes for the normalization of qRT-PCR data in gene expression studies of mouse mammary glands.

**Key words:** geNorm; Lactation; Quantitative real-time PCR;  
Reference gene