

Table S1. Box-Cox transformation received by mRNA expression of genes used in this study.

Gene	λ	Transformation
<i>SAA</i>	0	$\ln(x)$
<i>HPT</i>	0	$\ln(x)$
<i>ALB</i>	1	No ¹
<i>HAMP</i>	0.5	$\text{Sqrt}(x)$
<i>HMGCR</i>	-0.5	$1/\text{Sqrt}(x)$
<i>HMGCS-2</i>	0.5	$\text{Sqrt}(x)$
<i>PC</i>	-1	$1/x$

\ln = natural logarithm, Sqrt = Square root, *SAA* = Serum α -amyloid, *HPT* = Haptoglobin, *ALB* = Albumin, *HAMP* = Hepcidin, *HMGCR* = 3-hydroxy-3-methylglutaryl-CoA reductase, *HMGCS-2* = 3-hydroxy-3-methyl-glutaryl CoA-synthase, *PC* = Pyruvate carboxylase. ¹ No transformation was required.

Table S2. Least square means \pm SEM of mRNA expression of Serum α -amyloid and Haptoglobin before back transformation.

Gene	P1	P2	P3
<i>SAA</i>	-3.28 ± 0.829	-0.96 ± 0.829	-2.34 ± 0.741
<i>HPT</i>	-0.80 ± 0.730	0.93 ± 0.730	-1.19 ± 0.653

SAA = Serum α -amyloid, *HPT* = Haptoglobin.