Supplementary Materials for
Different Gene Expressions of Alpha and Beta Glucocorticoid Receptors in Asthmatics

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Calculation of GCRα and GCRβ Gene Expressions
BY $2^{-\Delta\Delta C_{T}}$ Analysis Method

Part 1

Relations of the GCRα expression among the groups:
Mean ΔCts of Asthma group: 2.47
Mean ΔCts of SRA group: 2.75
Mean ΔCts of Control group: 2.37
So,
1) Calculation of $2^{-\Delta\Delta C_{T}}$ for Asthma vs. Control: $2^{-(2.47-2.37)} = 2^{0.1} = 0.93303$
2) Calculation of $2^{-\Delta\Delta C_{T}}$ for SRA vs. Control: $2^{-(2.75-2.37)} = 2^{0.38} = 0.76843$
3) Calculation of $2^{-\Delta\Delta C_{T}}$ for SRA vs. asthma: $2^{-(2.75-2.47)} = 2^{0.28} = 0.82359$

Relations of the GCRβ expression among the groups:
Mean ΔCts of Asthma group: 12.09
Mean ΔCts of SRA group: 11.55
Mean ΔCts of Control group: 11.57
So,
1) Calculation of $2^{-\Delta\Delta C_{T}}$ for Asthma vs. Control: $2^{-(12.09-11.57)} = 2^{0.52} = 0.69737$
2) Calculation of $2^{-\Delta\Delta C_{T}}$ for SRA vs. Control: $2^{-(11.55-11.57)} = 2^{0.02} = 1.01395$
3) Calculation of $2^{-\Delta\Delta C_{T}}$ for SRA vs. asthma: $2^{-(11.55-12.09)} = 2^{0.54} = 1.45397$

Part 2

Relations of the GCRα and GCRβ expressions in each group:

In Asthma group:
Mean ΔCts of GCRα: 2.47
Mean ΔCts of GCRβ: 12.09
So,
1) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRα vs. GCRβ: $2^{-(2.47-12.09)} = 2^{9.62} = 768.8800$
2) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRβ vs. GCRα : $2^{-(12.09-2.47)} = 2^{-9.62} = 0.0012$

In SRA group:
Mean ΔCts of GCRα: 2.75
Mean ΔCts of GCRβ: 11.55
So,
1) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRα vs. GCRβ: $2^{-(2.75-11.55)} = 2^{8.8} = 445.7218$
2) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRβ vs. GCRα : $2^{-(11.55-2.75)} = 2^{-8.8} = 0.0022$

In control group:
Mean ΔCts of GCRα: 2.37
Mean ΔCts of GCRβ: 11.57
So,
1) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRα vs. GCRβ: $2^{-(2.37-11.57)} = 2^{9.2} = 588.1335$
2) Calculation of $2^{-\Delta\Delta C_{T}}$ for GCRβ vs. GCRα : $2^{-(11.57-2.37)} = 2^{-9.2} = 0.0017$
The Dot Plot Diagram of Correlations of the GCRα and GCRβ Gene Expression

Figure S1. Dot plot diagram of correlation in severe asthma group (Age and BMI are presented in year and kg/M² respectively. Delta CTs are ratio, have no unit).
Figure S2. Dot plot diagram of correlation in asthma group (Age and BMI are presented in year and kg/M$^2$ respectively. Delta CTs are ratio, have no unit).
**Figure S3.** Dot plot diagram of correlation in control group (Age and BMI are presented in year and kg/M² respectively. Delta CTs are ratio, have no unit).