



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

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Calculation of GCR α and GCR β Gene Expressions BY 2- $\Delta\Delta$ CT Analysis Method

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**Calculation of GCR α and GCR β Gene Expressions
BY $2^{-\Delta\Delta Ct}$ Analysis Method**

Part 1

Relations of the GCR α expression among the groups:

Mean ΔCt s of Asthma group: 2.47
 Mean ΔCt s of SRA group: 2.75
 Mean ΔCt s of Control group: 2.37

So,

- 1) Calculation of $2^{-\Delta\Delta Ct}$ for Asthma vs. Control: $2^{-(2.47-2.37)} = 2^{-0.1} = 0.93303$
- 2) Calculation of $2^{-\Delta\Delta Ct}$ for SRA vs. Control: $2^{-(2.75-2.37)} = 2^{-0.38} = 0.76843$
- 3) Calculation of $2^{-\Delta\Delta Ct}$ for SRA vs. asthma: $2^{-(2.75-2.47)} = 2^{-0.28} = 0.82359$

Relations of the GCR β expression among the groups:

Mean ΔCt s of Asthma group: 12.09
 Mean ΔCt s of SRA group: 11.55
 Mean ΔCt s of Control group: 11.57

So,

- 1) Calculation of $2^{-\Delta\Delta Ct}$ for Asthma vs. Control: $2^{-(12.09-11.57)} = 2^{-0.52} = 0.69737$
- 2) Calculation of $2^{-\Delta\Delta Ct}$ for SRA vs. Control: $2^{-(11.55-11.57)} = 2^{0.02} = 1.01395$
- 3) Calculation of $2^{-\Delta\Delta Ct}$ for SRA vs. asthma: $2^{-(11.55-12.09)} = 2^{0.54} = 1.45397$

Part 2

Relations of the GCR α and GCR β expressions in each group:

In Asthma group;

Mean ΔCt s of GCR α : 2.47
 Mean ΔCt s of GCR β : 12.09

So,

- 1) Calculation of $2^{-\Delta\Delta Ct}$ for GCR α vs. GCR β : $2^{-(2.47-12.09)} = 2^{9.62} = 768.8800$
- 2) Calculation of $2^{-\Delta\Delta Ct}$ for GCR β vs. GCR α : $2^{-(12.09-2.47)} = 2^{-9.62} = 0.0012$

In SRA group;

Mean ΔCt s of GCR α : 2.75
 Mean ΔCt s of GCR β : 11.55

So,

- 1) Calculation of $2^{-\Delta\Delta Ct}$ for GCR α vs. GCR β : $2^{-(2.75-11.55)} = 2^{8.8} = 445.7218$
- 2) Calculation of $2^{-\Delta\Delta Ct}$ for GCR β vs. GCR α : $2^{-(11.55-2.75)} = 2^{-8.8} = 0.0022$

In control group;

Mean ΔCt s of GCR α : 2.37
 Mean ΔCt s of GCR β : 11.57

So,

- 1) Calculation of $2^{-\Delta\Delta Ct}$ for GCR α vs. GCR β : $2^{-(2.37-11.57)} = 2^{9.2} = 588.1335$
- 2) Calculation of $2^{-\Delta\Delta Ct}$ for GCR β vs. GCR α : $2^{-(11.57-2.37)} = 2^{-9.2} = 0.0017$

The Dot Plot Diagram of Correlations of the GCR α and GCR β Gene Expression

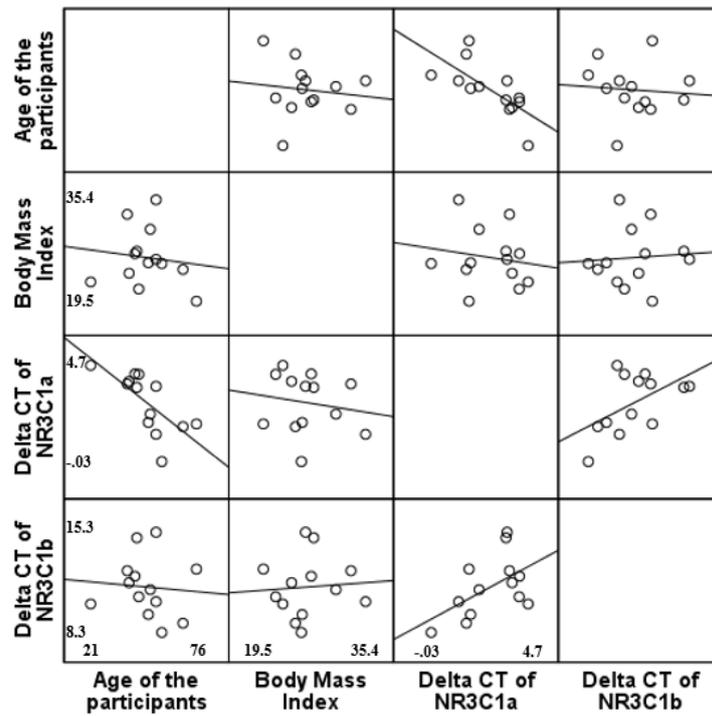


Figure S1. Dot plot diagram of correlation in severe asthma group (Age and BMI are presented in year and kg/M² respectively. Delta CTs are ratio, have no unit).

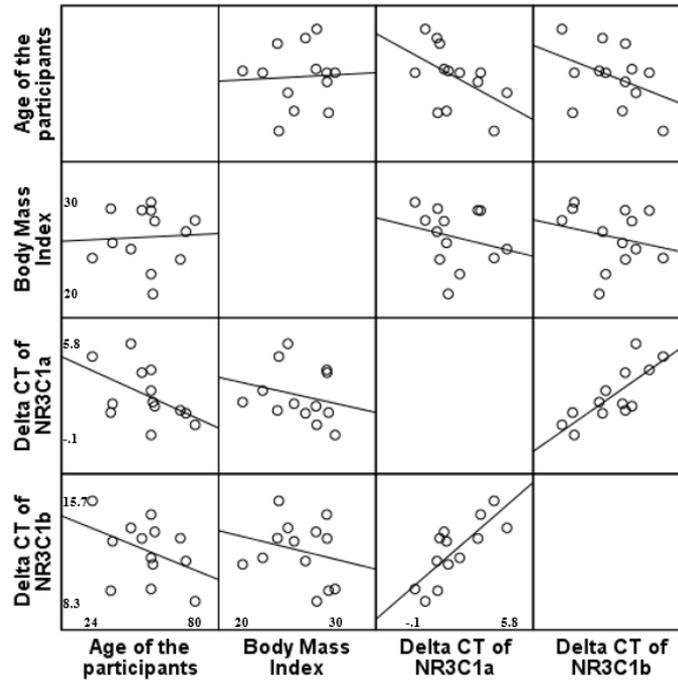


Figure S2. Dot plot diagram of correlation in asthma group (Age and BMI are presented in year and kg/M^2 respectively. Delta CTs are ratio, have no unit).

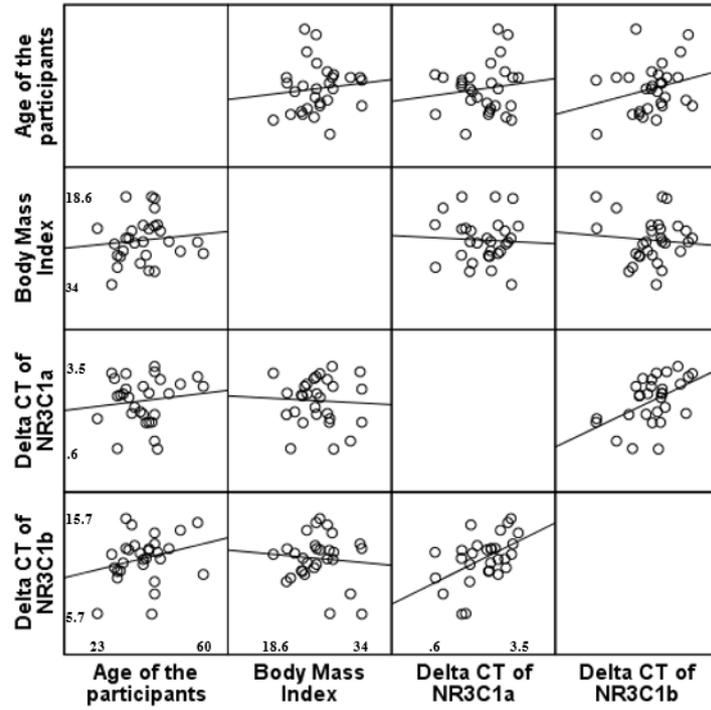


Figure S3. Dot plot diagram of correlation in control group (Age and BMI are presented in year and kg/M^2 respectively. Delta CTs are ratio, have no unit).