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

Kayvan Saeedfar, Mehrdad Behmanesh*, Esmaeil Mortaz and Mohammad Reza Masjedi

*To whom correspondence should be addressed. E-mail: behmanesh@modares.ac.ir

Volume 17, Issue 2 (Spring 2018)

This PDF file includes:
Calculation of GCRα and GCRβ Gene Expressions BY 2-ΔΔCT Analysis Method
Figures S1 to S3
Calculation of GCRα and GCRβ Gene Expressions
BY $2^{-\Delta\Delta Ct}$ 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 $2^{-\Delta\Delta Ct}$ 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 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 $2^{-\Delta\Delta Ct}$ 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 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 $2^{-\Delta\Delta Ct}$ for GCRα vs. GCRβ: $2^{-(2.47-12.09)} = 2^{-9.62} = 0.0012$

In SRA group;
Mean ΔCts of GCRα: 2.75
Mean ΔCts of GCRβ: 11.55

So,

1) Calculation of $2^{-\Delta\Delta Ct}$ for GCRα vs. GCRβ: $2^{-(2.75-11.55)} = 2^{-8.8} = 0.0022$

In Control group;
Mean ΔCts of GCRα: 2.37
Mean ΔCts of GCRβ: 11.57

So,

1) Calculation of $2^{-\Delta\Delta Ct}$ for GCRα vs. GCRβ: $2^{-(2.37-11.57)} = 2^{-9.2} = 0.0017$
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/M² 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).