

Appendix S2.

SUPPLEMENTARY RESULTS

Occurrence of *HRNR* SNP (rs11204937) and *HRNR* SNP (rs877776) in patients with AD

GG genotype was the prevailing form of *HRNR* (rs877776) found in patients with AD. It was observed in 65% of patients with AD and was 1.65 times more frequent in patients with AD compared with healthy subjects, but there was no statistic significance ($p=0.3$). No association was found between rs877776 genotype/alleles and elevated serum IgE levels ($p=0.5/p=0.88$), pruritus ($p=0.6/p=0.53$), SCORAD score ($p=0.5/p=0.93$), age

($p=0.2/p=0.26$), early onset of AD ($p=0.4/p=0.28$), eosinophilia ($p=0.36/p=0.28$), or concomitant asthma ($p=0.6/p=0.7$).

CC genotype of *HRNR* (rs11204937) was rare, but was more frequent in patients with AD than in controls, in contrast to AA genotype, which was the prevailing form in healthy controls (STable I). rs11204937[C] was 1.8 times more frequent in patients with AD, but there was no statistic significance. Patients with CC genotype of *HRNR* (rs11204937) presented higher levels of IgE ($p=0.007$) and earlier onset of AD ($p=0.02$) than those with AA genotype. No association was observed between *HRNR* (rs11204937) genotypes, either A or C-allele, and pruritus ($p=0.17$; $p=0.2$), SCORAD ($p=0.7$; $p=0.5$) and concomitant asthma ($p=0.9$; $p=0.9$).

STable I. Frequency of genotypes and alleles of hornerin (*HRNR*) in patients with atopic dermatitis (AD) and control group with logistic regression analysis of association between single nucleotide polymorphism (SNP) *HRNR* and AD

| | Genotype and minor allele | Occurrence in patients with AD (%) | Occurrence in healthy subjects (%) | p | OR | 95% CI | p |
|-----------------|---------------------------|------------------------------------|------------------------------------|-------------|----------|--------------------|------|
| HRNR rs877776 | GG | 65 | 58 | 0.3 0.24 | 1.31892 | 0.7738883–2.247804 | 0.30 |
| | GC | 34 | 42 | | | | |
| | CC | 1 | 0 | | | | |
| | G | 82 | 78 | | | | |
| | C | 18 | 22 | | | | |
| HRNR rs11204937 | AA | 66 | 72 | 0.79 | 1.310521 | 0.7672001–2.238616 | 0.31 |
| | AC | 32 | 27 | | | | |
| | CC | 2 | 1 | | | | |
| | A | 82 | 86 | | | | |
| | C | 18 | 14 | 0.51 | | | |

CI: confidence interval.