**Evaluation of association of LOC105371267 polymorphisms and breast cancer susceptibility**

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**Table S1 Relationships of LOC105371267 rs6499221 G>A and clinical characteristics of breast cancer.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  | **Homozygote****(AA vs GG)** | **Heterozygote****(AG vs GG)** | **Dominant****(AA+AG vs GG)** | **Recessive****(AA vs AG + GG)** | **Additive****(AA vs AG vs GG)** |
| ER status [Positive (n = 380) vs negative (n = 172)] |
| OR (95% CI) a | 4.21 (0.95-18.66) | 1.27 (0.86-1.88) | 1.38 (0.94-2.03) | 3.90 (0.88-17.19) | **1.43 (1.02-2.02)** |
| *P*-value a | 0.058 | 0.232 | 0.100 | 0.072 | **0.041**\* |
| PR status [Positive (n = 328) vs negative (n = 224)] |
| OR (95% CI) a | 2.03 (0.70-5.85) | 1.15 (0.80-1.67) | 1.21 (0.85-1.73) | 1.94 (0.68-5.54) | 1.23 (0.90-1.69) |
| *P*-value a | 0.131 | 0.453 | 0.298 | 0.218 | 0.191 |
| Ki67 status [High (n = 371) vs low (n = 154)] |
| OR (95% CI) a | 0.50 (0.19-1.31) | 0.80 (0.53-1.20) | 0.76 (0.51-1.12) | 0.54 (0.21-1.40) | 0.76 (0.55-1.06) |
| *P*-value a | 0.157 | 0.273 | 0.165 | 0.203 | 0.105 |
| Tumor size [> 2 cm (n = 238) vs ≤ 2 cm (n = 206)] |
| OR (95% CI) a | 1.93 (0.64-5.81) | 1.17 (0.79-1.76) | 1.23 (0.83-1.81) | 1.83 (0.61-5.47) | 1.24 (0.88-1.75) |
| *P*-value a | 0.243 | 0.436 | 0.303 | 0.279 | 0.212 |
| Lymph nodes metastasis [Positive (n = 277) vs negative (n = 279)] |
| OR (95% CI) a | 0.52 (0.19-1.42) | 1.15 (0.81-1.65) | 1.08 (0.76-1.52) | 0.50 (0.18-1.34) | 0.99 (0.73-1.33) |
| *P*-value a | 0.201 | 0.433 | 0.680 | 0.168 | 0.926 |
| TNM stage [(III-IV (n = 161) vs I-II (n = 366)] |
| OR (95% CI) a | 0.96 (0.33-2.76) | 1.20 (0.81-1.79) | 1.18 (0.80-1.73) | 0.90 (0.31-2.57) | 1.12 (0.80-1.56) |
| *P*-value a | 0.935 | 0.360 | 0.398 | 0.839 | 0.504 |

OR: odd ratio; 95% CI: 95% confidence interval.

Bold values are statistically significant.

a *P* values, odd ratios and their 95% CI were estimated by logistic regression models with the adjustment for age.

\* indicates statistical significance (p < 0.05).

**Table S2 Relationships of LOC105371267 rs3931698 T>G and clinical characteristics of breast cancer.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  | **Homozygote****(GG vs TT)** | **Heterozygote****(GT vs TT)** | **Dominant****(GG +GT vs TT)** | **Recessive****(GG vs GT + TT)** | **Additive****(GG vs GT vs TT)** |
| ER status [Positive (n = 380) vs negative (n = 172)] |
| OR (95% CI) a | 0.72 (0.12-4.39) | 1.43 (0.92-2.22) | 1.39 (0.91-2.14) | 0.67 (0.11-4.03) | 1.32 (0.88-1.98) |
| *P*-value a | 0.726 | 0.109 | 0.131 | 0.658 | 0.181 |
| PR status [Positive (n = 328) vs negative (n = 224)] |
| OR (95% CI) a | 1.11 (0.18-6.72) | **1.52 (1.01-2.29)** | **1.50 (1.01-2.25)** | 1.00 (0.17-6.06) | 1.44 (0.99-2.11) |
| *P*-value a | 0.912 | **0.043**\* | **0.046**\* | 1.000 | 0.059 |
| Ki67 status [High (n = 371) vs low (n = 154)] |
| OR (95% CI) a | / | 0.78 (0.51-1.20) | 0.82 (0.54-1.25) | / | 0.88 (0.59-1.32) |
| *P*-value a | / | 0.261 | 0.359 | / | 0.533 |
| Tumor size [> 2 cm (n = 238) vs ≤ 2 cm (n = 206)] |
| OR (95% CI) a | 0.87 (0.02-6.28) | 1.00 (0.64-1.55) | 0.99 (0.64-1.53) | 0.87 (0.12-6.27) | 0.99 (0.65-1.49) |
| *P*-value a  | 0.893 | 0.985 | 0.967 | 0.894 | 0.947 |
| Lymph nodes metastasis [Positive (n = 277) vs negative (n = 279)] |
| OR (95% CI) a | 4.27 (0.47-38.53) | 1.22 (0.83-1.80) | 1.27 (0.87-1.86) | 4.06 (0.45-36.57) | 1.30 (0.91-1.87) |
| *P*-value a | 0.196 | 0.308 | 0.221 | 0.211 | 0.152 |
| TNM stage [(III-IV (n = 161) vs I-II (n = 366)] |
| OR (95% CI) a | / | **1.58 (1.04-2.40)** | 1.48 (0.98-2.25) | / | 1.33 (0.90-1.97) |
| *P*-value a | / | **0.033**\* | 0.063 | / | 0.151 |

OR: odd ratio; 95% CI: 95% confidence interval.

Bold values are statistically significant.

“/” denotes that the values of OR (95% CI) and *P* were unavailable due to the absence of allele or genotype frequency.

a *P* values, odd ratios and their 95% CI were estimated by logistic regression models with the adjustment for age.

\* indicates statistical significance (p < 0.05).

**Table S3 Relationships of LOC105371267 rs8044565 T>C and clinical characteristics of breast cancer.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  | **Homozygote****(CC vs TT)** | **Heterozygote****(CT vs TT)** | **Dominant****(CC +CT vs TT)** | **Recessive****(CC vs CT + TT)** | **Additive****(CC vs CT vs TT)** |
| ER status [Positive (n = 380) vs negative (n = 172)] |
| OR (95% CI) a | 0.60 (0.30-1.19) | 1.01 (0.69-1.49) | 0.92 (0.64-1.33) | 0.60 (0.31-1.17) | 0.87 (0.65-1.16) |
| *P*-value a  | 0.144 | 0.959 | 0.664 | 0.132 | 0.336 |
| PR status [Positive (n = 328) vs negative (n = 224)] |
| OR (95% CI) a  | 0.54 (0.27-1.07) | 1.10 (0.76-1.58) | 0.97 (0.69-1.37) | 0.53 (0.27-1.02) | 0.88 (0.67-1.16) |
| *P*-value a | 0.077 | 0.628 | 0.875 | 0.056 | 0.362 |
| Ki67 status [High (n = 371) vs low (n = 154)] |
| OR (95% CI) a | 1.15 (0.52-2.45) | 0.78 (0.53-1.17) | 0.83 (0.57-1.22) | 1.26 (0.58-2.75) | 0.923 (0.681.25) |
| *P*-value a | 0.739 | 0.739 | 0.343 | 0.565 | 0.604 |
| Tumor size [> 2 cm (n = 238) vs ≤ 2 cm (n = 206)] |
| OR (95% CI) a | 2.05 (093-4.53) | 1.22 (0.82-1.82) | 0.32 (0.91-1.93) | 0.90 (0.87-1.13) | 1.33 (0.98-1.80) |
| *P*-value a | 0.076 | 0.323 | 0.146 | 0.107 | 0.069 |
| Lymph nodes metastasis [Positive (n = 277) vs negative (n = 279)] |
| OR (95% CI) a | 0.77 (0.39-1.52) | 1.05 (0.74-1.49) | 1.00 (0.71-1.39) | 0.75 (0.38-1.85) | 0.95 (0.73-1.25) |
| *P-*value a | 0.445 | 0.805 | 0.980 | 0.407 | 0.723 |
| TNM stage [(III-IV (n = 161) vs I-II (n = 366)] |
| OR (95% CI) a | 0.66 (0.29-1.51) | 1.26 (0.86-1.87) | 1.15 (0.79-1.67) | 0.61 (0.27-1.34) | 1.33 (0.98-1.81) |
| *P*-value a | 0.328 | 0.240 | 0.464 | 0.222 | 0.068 |

OR: odd ratio; 95% CI: 95% confidence interval.

Bold values are statistically significant.

a *P* values, odd ratios and their 95% CI were estimated by logistic regression models with the adjustment for age.

\* indicates statistical significance (p < 0.05).

**Table S4 Relationships of LOC105371267 rs3852740 C>G and clinical characteristics of breast cancer.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  | **Homozygote****(GG vs CC)** | **Heterozygote****(GC vs CC)** | **Dominant****(GG + GC vs CC)** | **Recessive****(GG vs GC + CC)** | **Additive****(GG vs GC vs CC)** |
| ER status [Positive (n = 380) vs negative (n = 172)] |
| OR (95% CI) a | 0.52 (0.22-1.22) | 0.73 (0.49-1.08) | 0.70 (0.48-1.02) | 0.58 (0.25-1.34) | **0.73 (0.53-0.99)** |
| *P*-value a | 0.133 | 0.113 | 0.060 | 0.201 | **0.043**\* |
| PR status [Positive (n = 328) vs negative (n = 224)] |
| OR (95% CI) a | 0.70 (0.30-1.63) | 0.84 (0.58-1.21) | 0.82 (0.58-1.17) | 0.74 (0.32-1.72) | 0.84 (0.62-1.13) |
| *P*-value a | 0.407 | 0.345 | 0.270 | 0.483 | 0.240 |
| Ki67 status [High (n = 371) vs low (n = 154)] |
| OR (95% CI) a | 2.43 (0.69-8.52) | 0.97 (0.64-1.45) | 1.05 (0.71-1.56) | 2.46 (0.71-8.55) | 1.13 (0.80-1.59) |
| *P*-value a | 0.166 | 0.866 | 0.819 | 1.411 | 0.489 |
| Tumor size [> 2 cm (n = 238) vs ≤ 2 cm (n = 206)] |
| OR (95% CI) a | 1.36 (0.51-3.62) | 1.01 (0.67-1.51) | 1.04 (0.71-1.54) | 1.36 (0.52-3.58) | 1.07 (0.77-1.49) |
| *P*-value a | 0.534 | 0.975 | 0.841 | 0.533 | 0.698 |
| Lymph nodes metastasis [Positive (n = 277) vs negative (n = 279)] |
| OR (95% CI) a | 1.07 (0.46-2.48) | 0.90 (0.62-1.29) | 0.92 (0.65-1.30) | 1.11 (0.48-2.55) | 0.95 (0.71-1.28) |
| *P*-value a | 0.879 | 0.571 | 0.633 | 0.815 | 0.748 |
| TNM stage [(III-IV (n = 161) vs I-II (n = 366)] |
| OR (95% CI) a | 1.01 (0.39-2.57) | 0.71 (0.47-1.07) | 0.74 (0. 50-1.09) | 1.13 (0.45-2.85) | 0.81 (0.58-1.14) |
| *P*-value a | 0.990 | 0.099 | 0.128 | 0.804 | 0.229 |

OR: odd ratio; 95% CI: 95% confidence interval.

Bold values are statistically significant.

a *P* values, odd ratios and their 95% CI were estimated by logistic regression models with the adjustment for age.

\* indicates statistical significance (p < 0.05).

**Table S5 Relationships of LOC105371267 rs111577197 and clinical characteristics of breast cancer.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  | **Homozygote****(TT vs CC)** | **Heterozygote****(TC vs CC)** | **Dominant****(TT + TC vs CC)** | **Recessive****(TT vs TC + CC)** | **Additive****(TT vs TC vs CC)** |
| ER status [Positive (n = 380) vs negative (n = 172)] |
| OR (95% CI) a | 2.38 (0.89-6.40) | 1.04 (0.71-1.54) | 1.15 (0.79-1.67) | 2.34 (0.88-6.24) | 1.22 (0.90-1.67) |
| *P*-value a | 0.085 | 0.826 | 0.464 | 0.088 | 0.207 |
| PR status [Positive (n = 328) vs negative (n = 224)] |
| OR (95% CI) a | 2.26 (0.94-5.44) | 0.91 (0.63-1.31) | 1.02 (0.72-1.45) | 2.34 (0.98-5.57) | 1.13 (0.85-1.51) |
| *P*-value a | 0.069 | 0.618 | 0.916 | 0.055 | 0.405 |
| Ki67 status [High (n = 371) vs low (n = 154)] |
| OR (95% CI) a | 0.61 (0.26-1.45) | 0.77 (0.52-1.15) | 0.75 (0.51-1.10) | 0.67 (0.28-1.58) | 0.78 (0.56-1.07) |
| *P*-value a | 0.264 | 0.208 | 0.144 | 0.358 | 0.120 |
| Tumor size [> 2 cm (n = 238) vs ≤ 2 cm (n = 206)] |
| OR (95% CI) | 1.34 (0.52-3.03) | 0.94 (0.63-1.41) | 0.99 (0.67-1.45) | 1.37 (0.58-3.24) | 1.04 (0.76-1.42) |
| *P*-value a | 0.508 | 0.767 | 0.946 | 0.472 | 0.830 |
| Lymph nodes metastasis [Positive (n = 277) vs negative (n = 279)] |
| OR (95% CI) a | 1.86 (0.86-4.04) | 0.12 (0.78-1.60) | 0.20 (0.85-1.69) | 1.79 (0.84-3.84) | 0.23 (0.93-1.62) |
| *P*-value a | 0.114 | 0.540 | 0.299 | 0.134 | 0.155 |
| TNM stage [(III-IV (n = 161) vs I-II (n = 366)] |
| OR (95% CI) a | 1.70 (0.76-3.77) | 1.36 (0.93-2.01) | 1.40 (0.96-2.04) | 1.52 (0.69-3.32) | 1.33 (0.98-1.81) |
| *P*-value a | 0.194 | 0.131 | 0.081 | 0.298 | 0.068 |

OR: odd ratio; 95% CI: 95% confidence interval.

Bold values are statistically significant.

a *P* values, odd ratios and their 95% CI were estimated by logistic regression models with the adjustment for age.

\* indicates statistical significance (p < 0.05).