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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Canonical pathways** | | **Gene** | **RNAseq analysis** | | | | | | | | | | | | |  | | | **qPCR analysis** | | | | | | | | | | | | | | | | **Global effect** | | | | |
|  | | |
| Oocytes | | | | |  | | Granulosa cells | | | | | |  | | | Oocytes | | | | | | | |  | | | Granulosa cells | | | | | |  | | |
|  | |  | | |  | | |  | | |
| PM | SC | | SA | |  | | PM | | SC | | SA |  | | | PM | | | SC | | | SA | |  | | | PM | | | SC | | SA |
|  | |  | | |  | | |
| BMP | MAGED1 | |  | |  | | 0.26 | |  | |  |  |  | | | |  | | |  | |  |  | |  | | |  | | | |  | |  | **NS** | | |
| NOG | |  | | 0.002 | | 0.05 | |  | |  |  |  | | | |  | | |  | | **-** ∞ | **0.073** | |  | | |  | | | |  | |  | **\*\*** | | |
| SMURF1 | |  | |  | |  | |  | |  |  | 0.05 | | | |  | | |  | |  |  | |  | | | **32.21** | | | | **0.13** | |  | **\*\*\*** | | |
| ACVRL1 | |  | | 0.26 | | 0.05 | |  | |  |  | 0.22 | | | |  | | |  | | **0.65** |  | |  | | |  | | | |  | |  | **\*** | | |
| IGF1 | IGF1 | |  | |  | | 0.11 | |  | |  |  |  | | | |  | | |  | |  |  | |  | | |  | | | |  | |  | **NS** | | |
| INSL3 | |  | | 17.69 | | 0.11 | |  | |  | 12.10 | 63.10 | | | |  | | |  | |  |  | |  | | |  | | | |  | | **42.25** | **\*** | | |
| SPRY4 | |  | | 0.014 | | 579 | |  | |  |  |  | | | |  | | |  | |  |  | |  | | |  | | | |  | |  | **NS** | | |
| Gap junction | GJA1 | |  | |  | |  | |  | |  | 3.49 | 5.44 | | | |  | | |  | |  |  | |  | | |  | | | | **1.38** | | **1.50** | **\*** | | |
| WNT | WIF1 | |  | |  | |  | |  | |  | 0.37 | 0.14 | | | |  | | |  | |  |  | |  | | |  | | | |  | | **0.29** | **\*** | | |
| LRP2 | | 3.9 | | 9.11 | | 9.45 | |  | |  |  | 0.18 | | | |  | | |  | |  |  | |  | | |  | | | |  | |  | **NS** | | |
| FGF | FGF16 | |  | |  | | 4.62 | |  | | 3.03 | 0.32 | 0.14 | | | |  | | |  | |  | **4.77** | |  | | | **2.38** | | | |  | | **0.45** | **\*\*\*** | | |
| PI3K | PIK3R3 | |  | |  | |  | |  | |  | 0.004 |  | | | |  | | |  | | **31.18** | **16.38** | |  | | |  | | | |  | |  | **\*\*\*** | | |
| KITLG | |  | |  | |  | |  | |  | 3.22 | 7.09 | | | |  | | |  | |  |  | |  | | |  | | | **5.41** | | **13.32** | | **\*** | |
| KIT | |  | |  | |  | |  | |  |  | 0.22 | | | |  | | |  | |  |  | |  | | |  | | | |  | |  | **NS** | | |
| RAR activation | CRABP1 | |  | | 0.11 | | 0.06 | |  | |  | 0.12 | 0.12 | | | |  | | |  | | **0.01** | **- ∞** | |  | | |  | | | |  | | **0.09** | **\*\*\*** | | |
| Apoptosis | BCL2 | |  | | **- ∞** | | **+ ∞** | |  | |  |  |  | | | |  | | |  | | **0.01** | **208** | |  | | |  | | | |  | |  | **\*** | | |
| GATA2 | |  | | 17.60 | | 78.96 | |  | |  |  |  | | | |  | | |  | |  |  | |  | | |  | | | | **- ∞** | | **+ ∞** | **\*** | | |
| MYC | |  | |  | |  | |  | |  |  | 4.51 | | | |  | | |  | | **4.85** | **4.01** | |  | | |  | | | | **2.95** | | **3.97** | **\*** | | |
| MOS | |  | | 3.36 | | 5.27 | |  | |  |  | 0.33 | | | |  | | |  | |  | **5.08** | |  | | |  | | | |  | | **0.23** | **\*\*\*** | | |

\*: p value <0.05; \*\*: p value <0.01; \*\*\*: p value <0.005