

Supplementary Material

Integrated Single-cell and Transcriptome Sequencing Analyses Identified PREX1 as an Immune-related Prognostic Biomarker for Liver Hepatocellular Carcinoma

Supplementary Table 1. Gene description of GO enrichment analyses of PREX1.

Supplementary Figure 1. Clinical information for two different expression groups of PREX1.

Supplementary Figure 2. The correlation between genes significantly related to PREX1 (KCTD12, HEG1, RASSF2, FMNL3 and RCSD1).

Supplementary Figure 3. The differences of PREX1 expression in TME scores by the ESTIMATH algorithm and the Wilcoxon test.

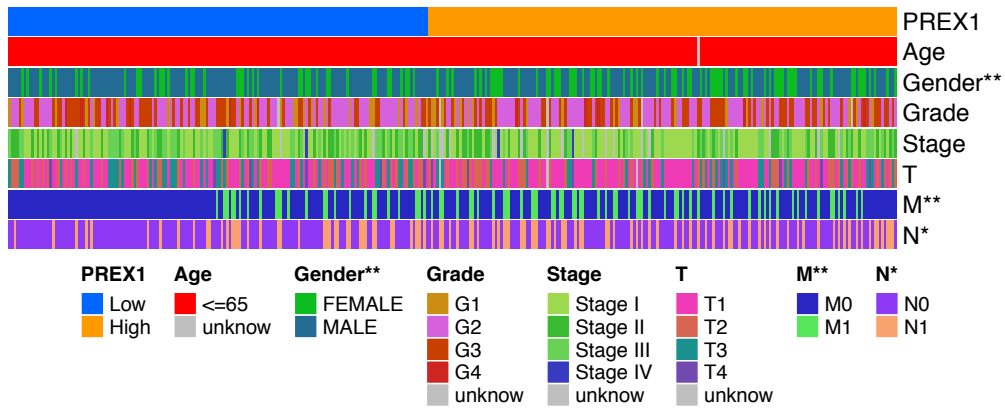
Supplementary Figure 4. Analysis of single-cell data found significant associations between PREX1 and macrophage-associated marker genes.

Supplementary Figure 5. The correlation between PREX1 and macrophage-associated marker genes by analysis of GEPIA.

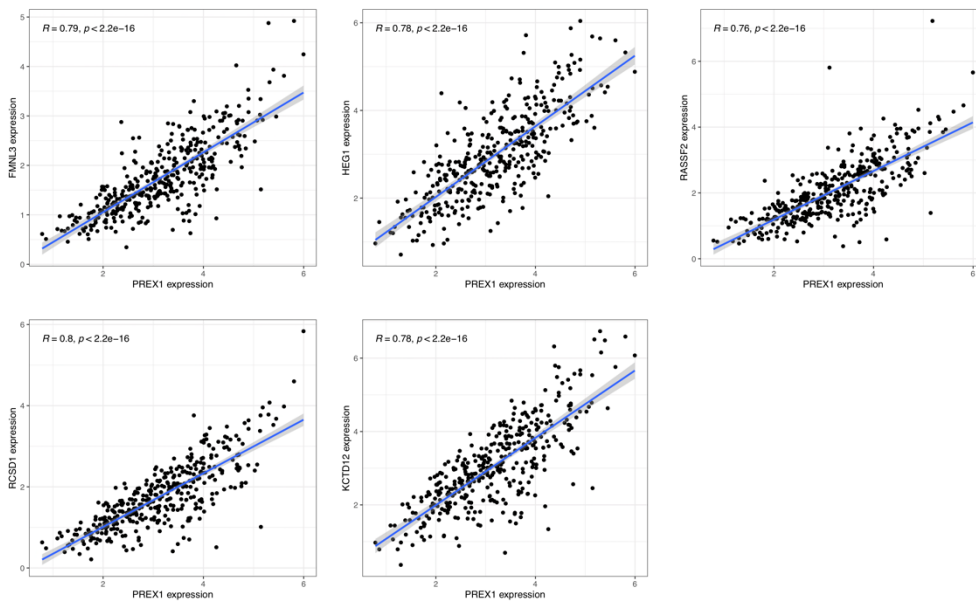
Supplementary Figure 6. The correlation between PREX1 and macrophage-associated marker genes by analysis of TCGA-LIHC samples.

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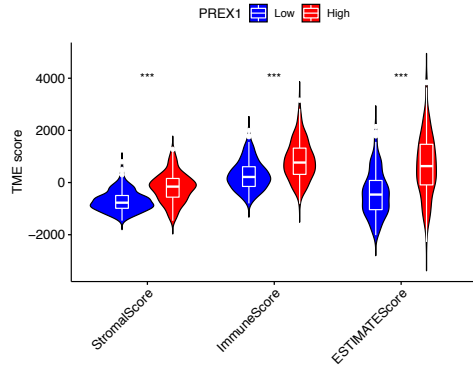
| ID | Description | GeneRatio | p-value |
|------------|--|-----------|----------|
| GO:0003823 | antigen binding | 108/1448 | 7.66E-75 |
| GO:0034987 | immunoglobulin receptor binding | 56/1448 | 1.35E-43 |
| GO:0005201 | extracellular matrix structural constituent | 64/1448 | 1.72E-27 |
| GO:0140375 | immune receptor activity | 46/1448 | 1.43E-16 |
| | extracellular matrix structural constituent conferring tensile | | |
| GO:0030020 | strength | 20/1448 | 3.91E-12 |
| GO:0005539 | glycosaminoglycan binding | 51/1448 | 1.71E-11 |
| GO:0002696 | positive regulation of leukocyte activation | 144/1546 | 4.86E-53 |
| GO:0050867 | positive regulation of cell activation | 146/1546 | 1.88E-52 |
| GO:0051251 | positive regulation of lymphocyte activation | 132/1546 | 7.02E-51 |
| GO:0050853 | B cell receptor signaling pathway | 75/1546 | 4.15E-47 |
| | immune response-regulating cell surface receptor signaling | | |
| GO:0002768 | pathway | 119/1546 | 6.44E-47 |
| GO:0002443 | leukocyte mediated immunity | 142/1546 | 1.42E-46 |
| GO:0019814 | immunoglobulin complex | 109/1589 | 1.73E-77 |
| GO:0042101 | T cell receptor complex | 91/1589 | 6.77E-63 |
| GO:0009897 | external side of plasma membrane | 158/1589 | 5.13E-60 |
| GO:0098802 | plasma membrane signaling receptor complex | 123/1589 | 1.52E-53 |
| GO:0098802 | plasma membrane signaling receptor complex | 123/1589 | 1.52E-53 |
| GO:0042571 | immunoglobulin complex, circulating | 55/1589 | 7.21E-43 |
| GO:0062023 | collagen-containing extracellular matrix | 96/1589 | 2.16E-20 |



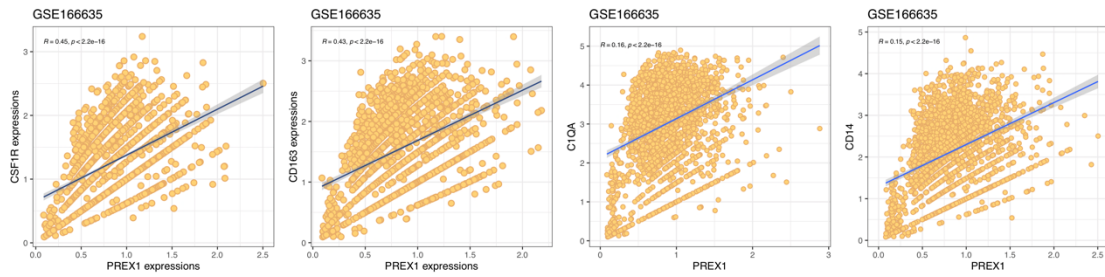
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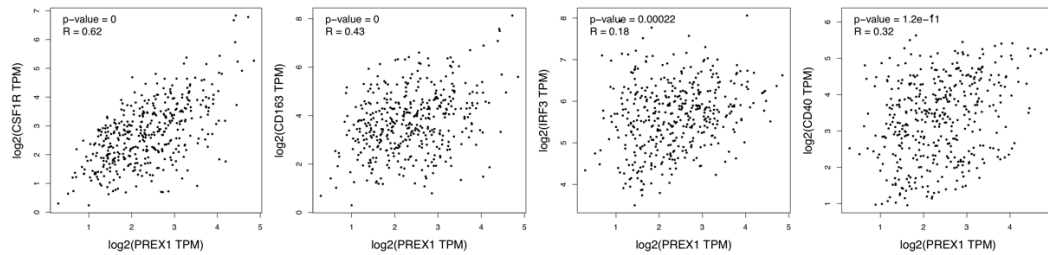
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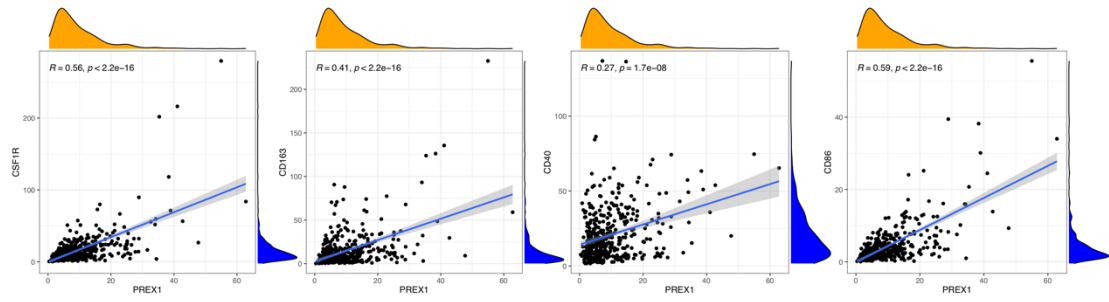
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