**Table S4** Gene ontology analysis of differential gene expression, showing top 10 significantly enriched terms comparing HBV with HBV-HCC and comparing HCV with HCV-HCC. p-value according to Fishers exact test.

|  |  |  |
| --- | --- | --- |
|  | **GO term** | **p-value** |
| HBVvs HBV-HCC – Biological processes | peptide cross-linking | 2.7 x 10-06 |
| sulfur compound metabolic process | 9.80 x 10-06 |
| glycosaminoglycan metabolic process | 9.80 x 10-06 |
| regulation of organ morphogenesis | 2.90 x 10-05 |
| humoral immune response | 5.40 x 10-05 |
| developmental growth involved in morphogenesis | 0.00011 |
| negative regulation of peptidase activit... | 0.00017 |
| bone morphogenesis | 0.00017 |
| regulation of morphogenesis of a branchi... | 0.00017 |
| placenta development | 0.00026 |
| HBV vs. HBV-HCC  Molecular function | extracellular matrix binding | 4.30 x 10-07 |
| glycosaminoglycan binding | 5.20 x 10-10 |
| collagen binding | 2.00 x 10-06 |
| heparin binding | 4.90 x 10-05 |
| monooxygenase activity | 0.00013 |
| extracellular matrix structural constitu... | 0.00074 |
| oxidoreductase activity, acting on paire... | 0.00074 |
| G-protein-coupled receptor binding | 0.00125 |
| transmembrane receptor activity | 0.00181 |
| endopeptidase regulator activity | 0.00252 |
| HCV vs. HCV-HCC  Biological processes | oxidation reduction | 1.10 x 10-12 |
| drug metabolic process | 1.10 x 10-12 |
| immune response | 3.20 x 10-13 |
| tryptophan catabolic process to kynureni... | 4.70 x 10-06 |
| peptide cross-linking via chondroitin 4-... | 6.70 x 10-06 |
| retinoic acid metabolic process | 9.40 x 10-06 |
| complement activation, alternative pathw... | 1.30 x 10-05 |
| gluconeogenesis | 1.60 x 10-05 |
| parturition | 1.70 x 10-05 |
| HCV vs. HCV-HCC  Molecular function | oxygen binding | 1.90 x 10-09 |
| heme binding | 6.30 x 10-17 |
| electron carrier activity | 1.30 x 10-14 |
| aromatase activity | 1.10 x 10-13 |
| chemokine activity | 5.50 x 10-09 |
| antigen binding | 1.50 x 10-08 |
| cadmium ion binding | 2.80 x 10-07 |
| retinal binding | 6.70 x 10-06 |
| oxidoreductase activity, acting on paire... | 8.50 x 10-06 |
| prostaglandin E receptor activity | 9.30 x 10-06 |