

Supplementary Material

Comprehensive Analysis of the mRNA-lncRNA Co-expression Profile and ceRNA Networks Patterns in Chronic Hepatitis B

Wenbiao Chen¹, Chenhong Lin¹, Lan Gong², Jianing Chen¹, Yan Liang¹, Ping Zeng¹ and Hongyan Diao^{1,*}

¹State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, Collaborative Innovation Center for Diagnosis and Treatment of Infectious Diseases, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, 310003, China; ²St George and Sutherland Clinical School, University of New South Wales, Sydney NSW 2052, Australia

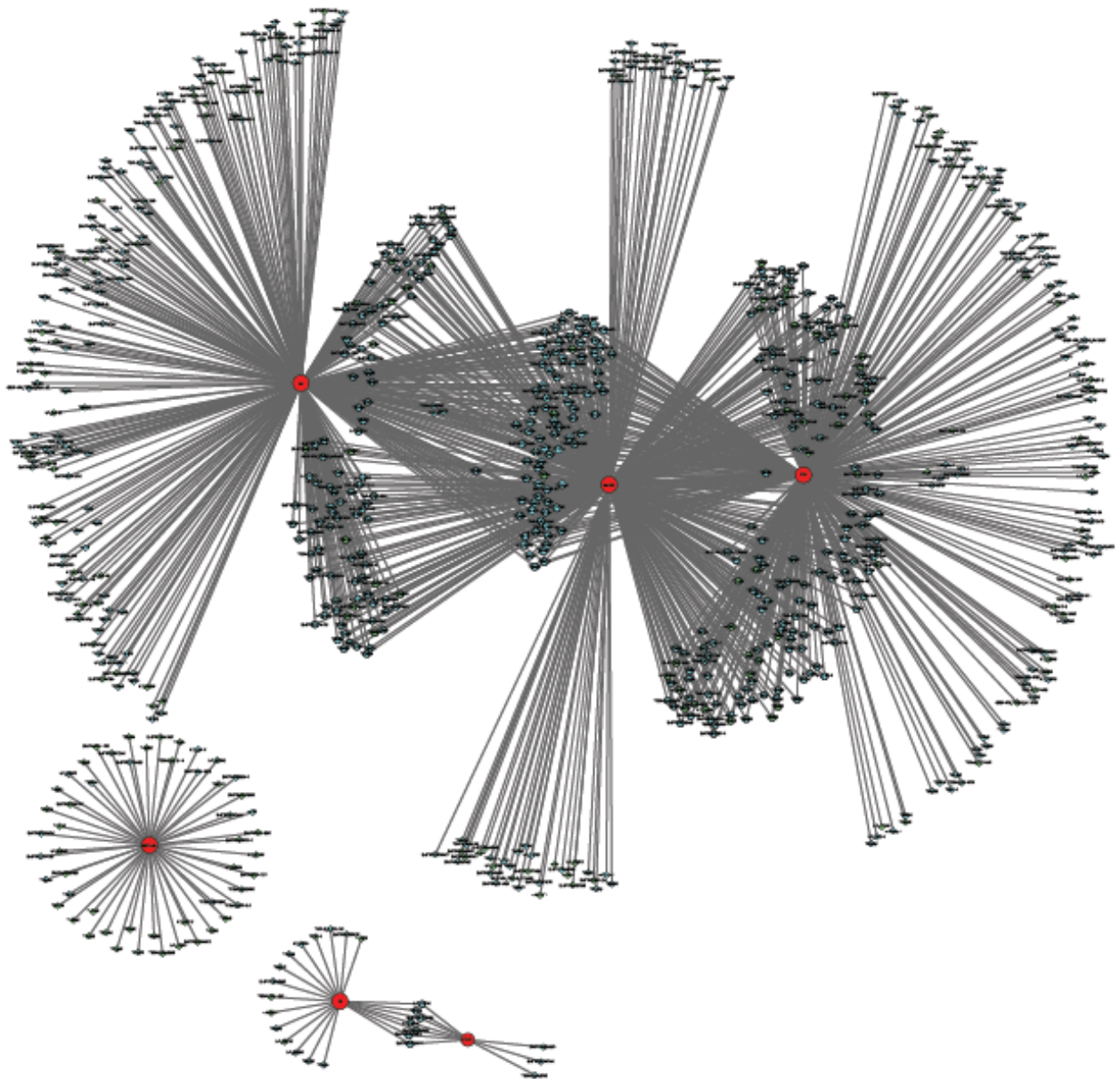


Fig. (1A). The co-expression network of complement and coagulation cascades.

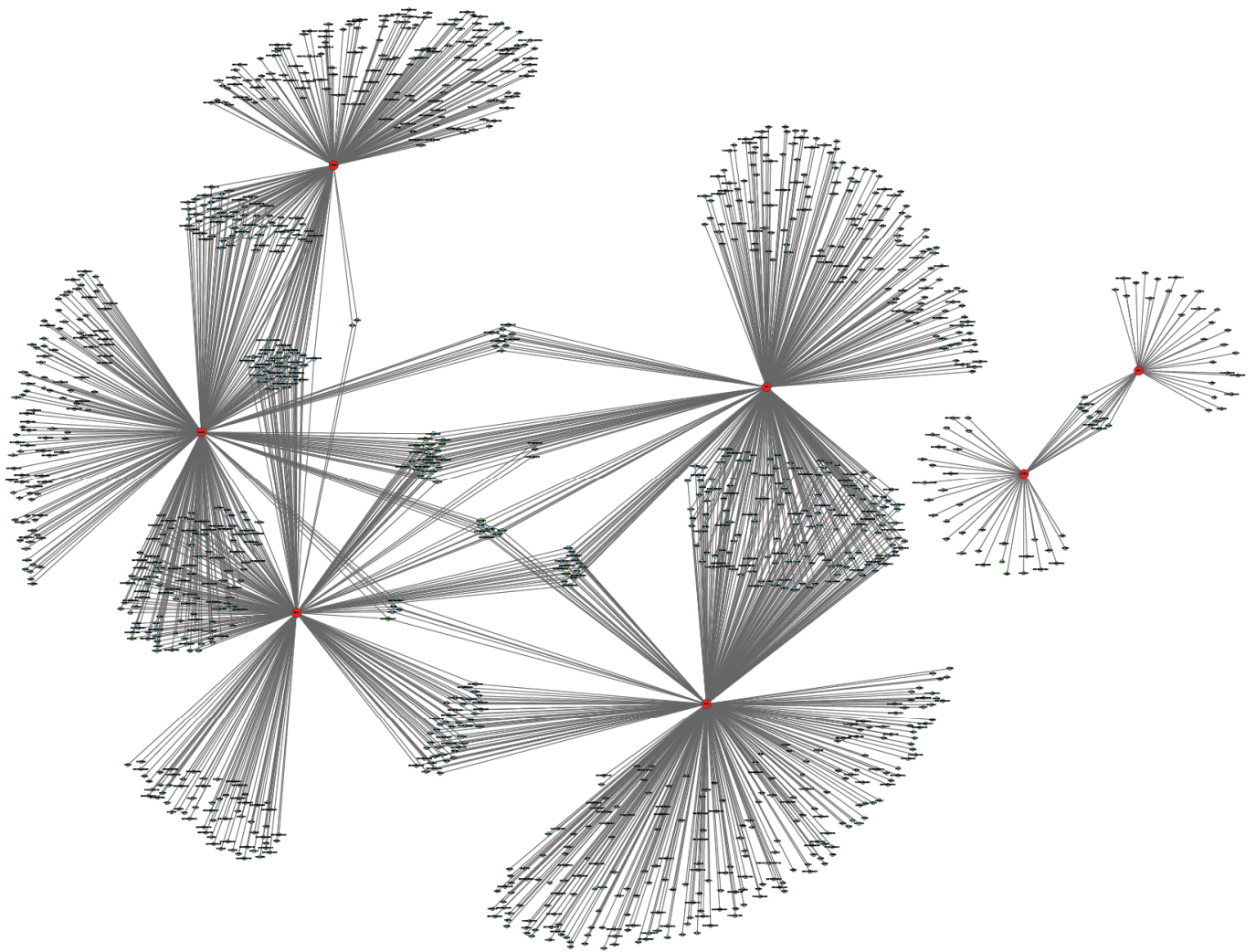


Fig. (1B). The co-expression network of TGF- β signaling pathway.

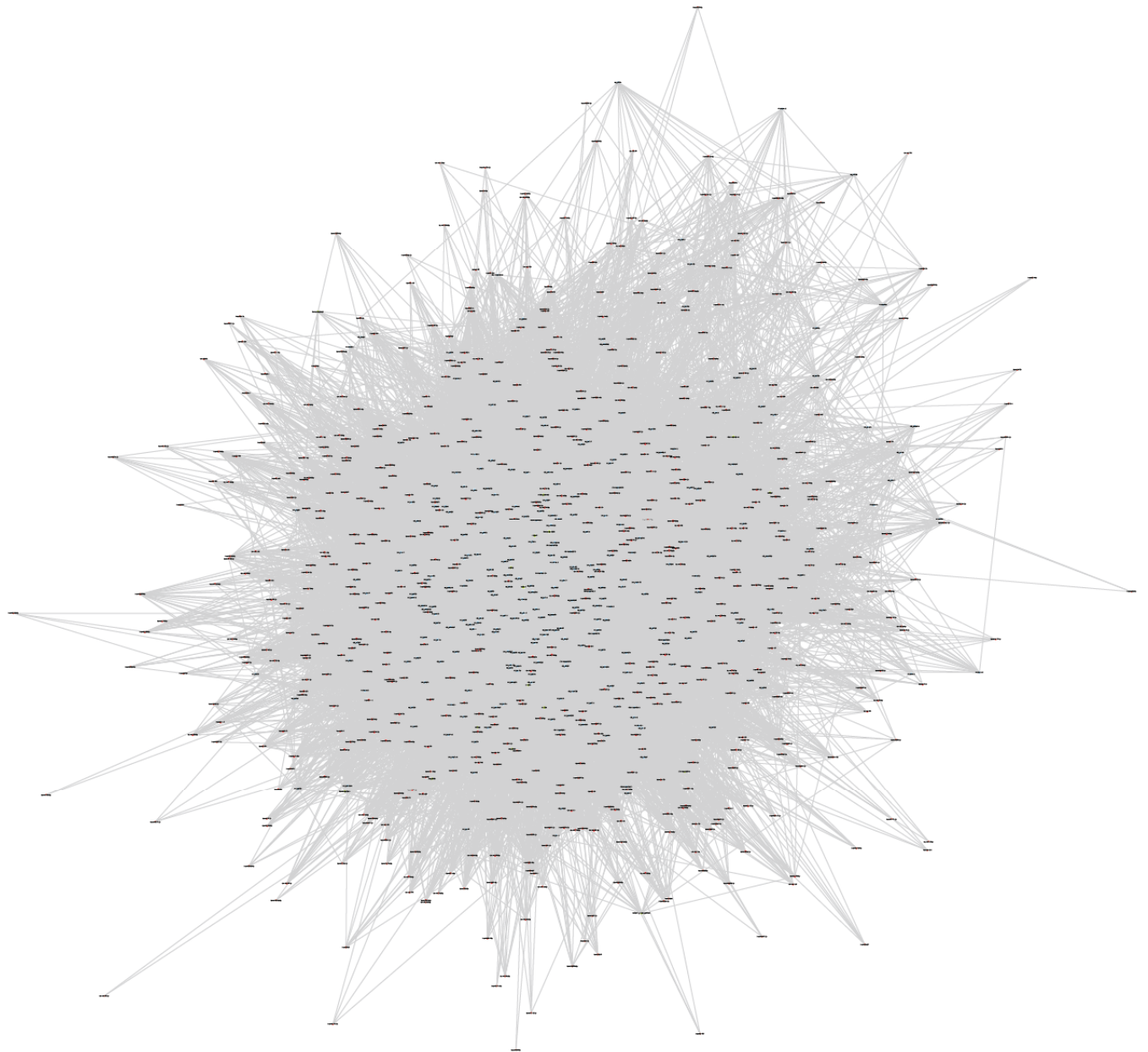


Fig. (2). ceRNAs for the top 10 up/downregulated lncRNAs.

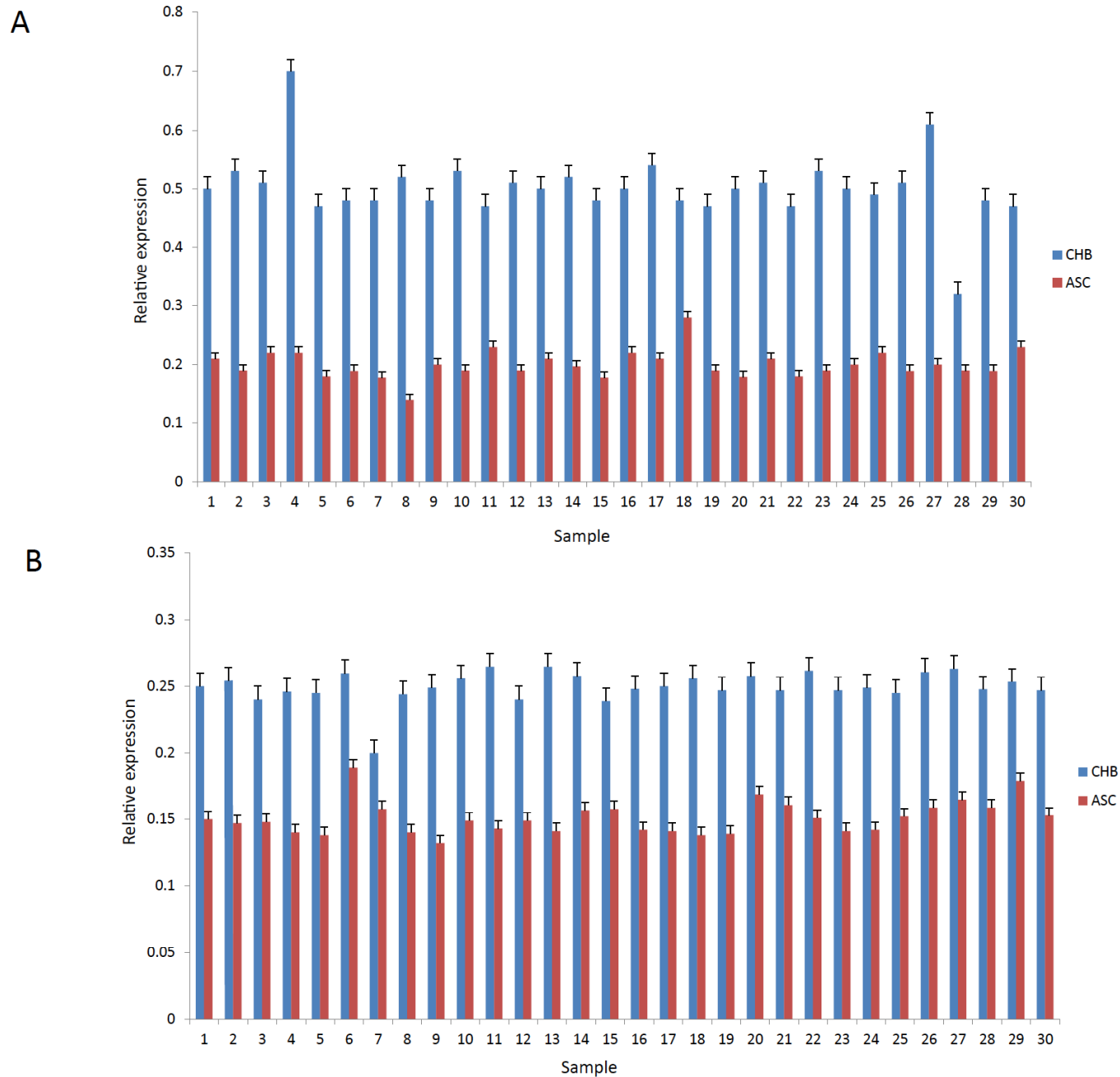


Fig. (3). Validation of the expression of *ZFP57* (A) and *T039096* (B) by qRT-PCR in 30 CHB and 30 ASC samples, respectively. Sample 1, 2 and 3 stand for the three CHB and ASC sample, which were used to sequencing analysis.

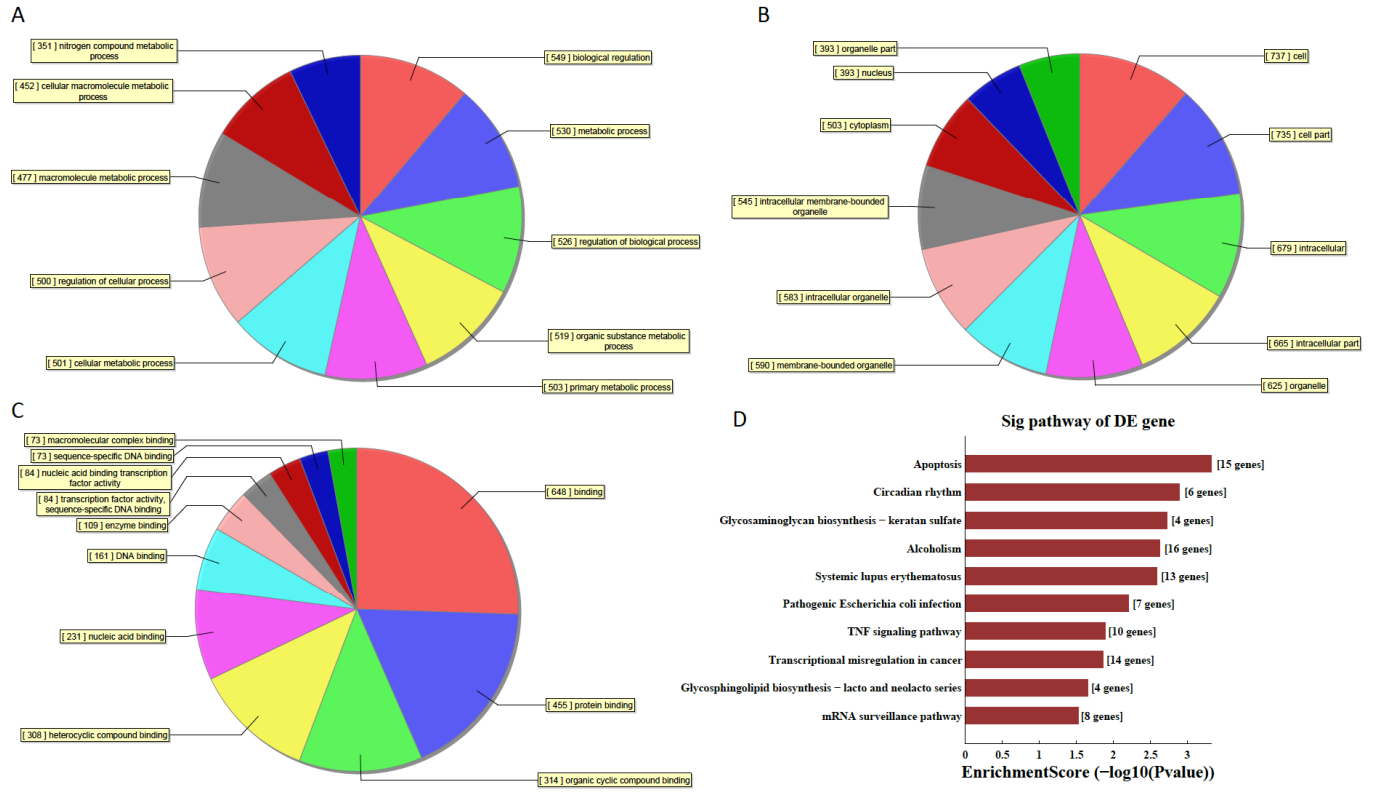


Fig. (4). GO and KEGG pathway analyses. Enrichment of biological process (A), cellular component (B) and molecular function (C) in downregulated mRNA. (D) KEGG pathway enrichment analysis of downregulated mRNAs.

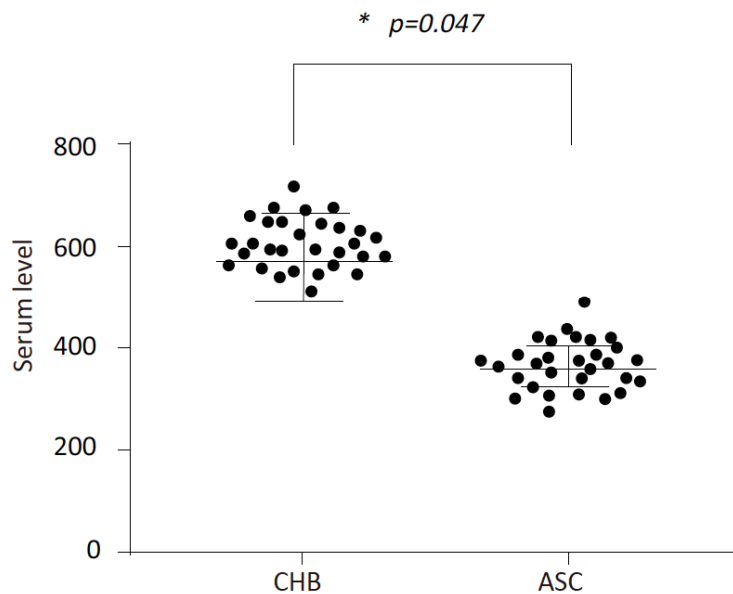


Fig. (5). Validation of protein level of ZFP57 by ELISA.

Table 1. Primers used for the examined mRNAs and lncRNAs.

	Forward Primer	Reverse Primer
<i>T039096</i>	ACACTGGTTTGGCTTGCTGA	ATGTTCAAAGCCCACTTCCCA
<i>ZFP57</i>	TAGCCCCAGGAAGGAATCCA	CTGGCTTCTTCTCACCCGT

Table 2. Correlations between *ZFP57* expression and clinical signature.

Characteristics	Number of Patients	M (P ₂₅ , P ₇₅)	P
HBV-DNA			0.765
>average value	8	0.00566 (0.00217, 0.01457)	
<average value	22	0.00385 (0.00126, 0.00640)	
ALT			0.038
>average value	18	0.00393 (0.00105, 0.00531)	
<average value	12	0.00573 (0.00364, 0.01574)	
AST			0.676
>average value	11	0.00535 (0.00431, 0.00674)	
<average value	19	0.00395 (0.00145, 0.01367)	
TB			0.553
>normal value	12	0.00523 (0.00378, 0.03125)	
<normal value	18	0.00463 (0.0030, 0.009656)	