

Figure S1. Results of immunohistochemical quantification with Image-Pro Plus 6.0 software and compared with original method. (A) Scatterplot of SAC3D1 based on the integrated optical density (IOD) value of the IHC section from 179 gastric cancer tissues and 147 normal tissues. The scatterplot indicates that the SAC3D1 was obviously up regulated in gastric cancer. (B) ROC curves of SAC3D1 based on the integrated optical density value of the IHC section from 179 gastric cancer tissues and 147 normal tissues. It was found that SAC3D1 has a certain potential to be a molecular indicator to identify GC tissues and normal tissues. (C) Spearman's correlation analysis based on immunohistochemical quantification from 179 gastric cancer tissues with Image-Pro Plus 6.0 software and original method. The results of the two quantitative methods shows a positive correlation, indicating that the results obtained by the two methods are consistent. (D) Correlation analysis based on immunohistochemical quantification from 147 normal tissues with Image-Pro Plus 6.0 software and original method. The results of the two quantitative methods shows a positive correlation, indicating that the results obtained by the two methods are consistent. The results of the two quantitative methods reveal a obvious positive correlation, indicating that the results obtained by the two methods are consistent. (E) Forest plot based on GEO datasets, TCGA RNA seq data, and IHC IOD data. (F) sROC curves of SAC3D1 based on GEO datasets, TCGA RNA seq data and IHC IOD data. SAC3D1, SAC3 domain containing 1.

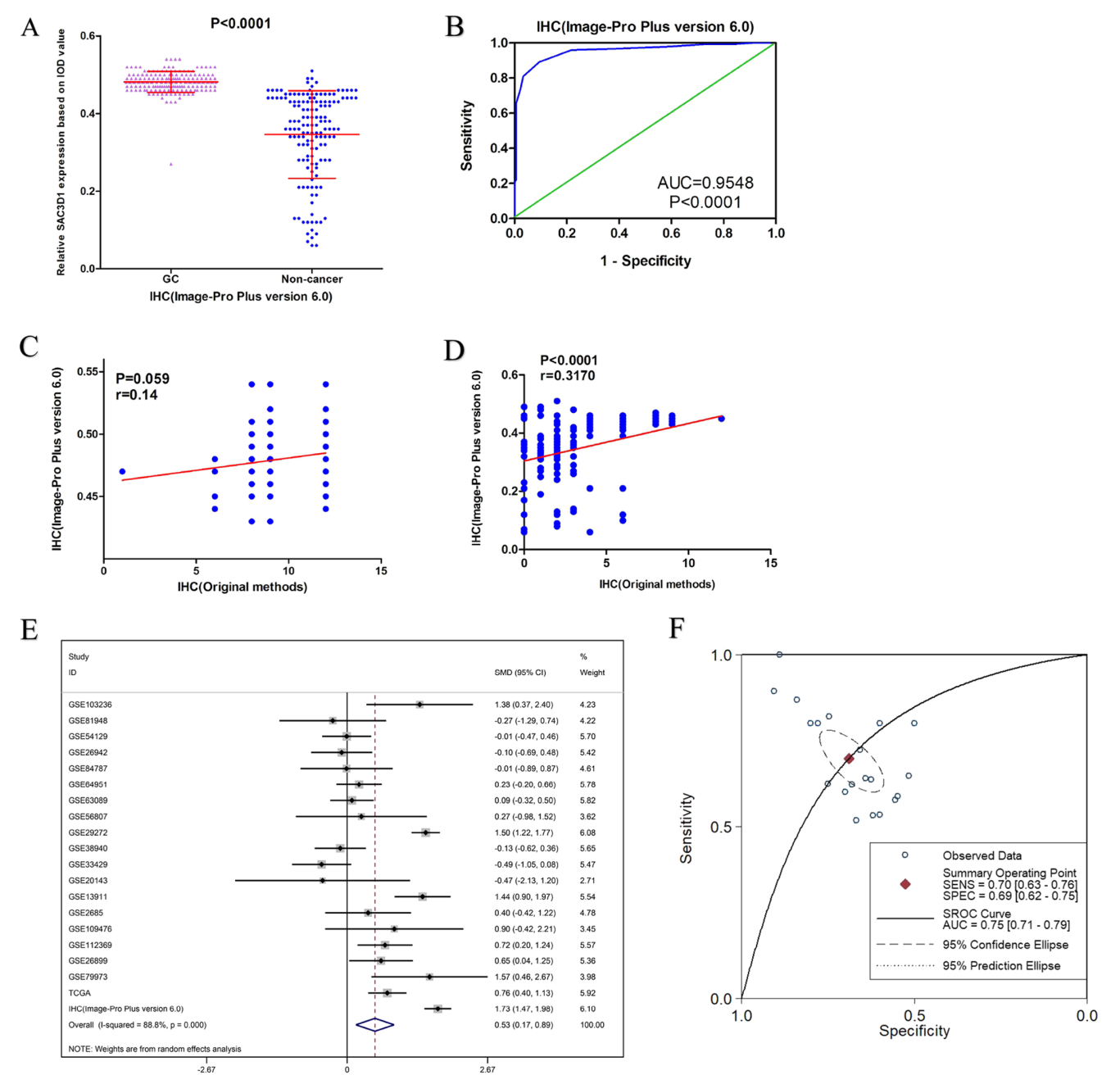


Table SI. The integrated optical density value of the IHC section from 179 gastric cancer tissues and 147 normal tissues.

Tissue type	IOD value	Tissue type	IOD value
Gastric cancer	0.27	Non-cancer	0.21
Gastric cancer	0.43	Non-cancer	0.12
Gastric cancer	0.43	Non-cancer	0.1
Gastric cancer	0.45	Non-cancer	0.21
Gastric cancer	0.44	Non-cancer	0.12
Gastric cancer	0.45	Non-cancer	0.12
Gastric cancer	0.47	Non-cancer	0.21
Gastric cancer	0.46	Non-cancer	0.13
Gastric cancer	0.47	Non-cancer	0.06
Gastric cancer	0.46	Non-cancer	0.13
Gastric cancer	0.45	Non-cancer	0.08
Gastric cancer	0.47	Non-cancer	0.21
Gastric cancer	0.46	Non-cancer	0.12
Gastric cancer	0.47	Non-cancer	0.09
Gastric cancer	0.46	Non-cancer	0.07
Gastric cancer	0.46	Non-cancer	0.09
Gastric cancer	0.47	Non-cancer	0.12
Gastric cancer	0.46	Non-cancer	0.13
Gastric cancer	0.47	Non-cancer	0.21
Gastric cancer	0.45	Non-cancer	0.06
Gastric cancer	0.46	Non-cancer	0.14
Gastric cancer	0.47	Non-cancer	0.17
Gastric cancer	0.46	Non-cancer	0.31
Gastric cancer	0.46	Non-cancer	0.21
Gastric cancer	0.46	Non-cancer	0.26
Gastric cancer	0.46	Non-cancer	0.28
Gastric cancer	0.47	Non-cancer	0.27
Gastric cancer	0.46	Non-cancer	0.28
Gastric cancer	0.45	Non-cancer	0.32
Gastric cancer	0.46	Non-cancer	0.29
Gastric cancer	0.47	Non-cancer	0.24
Gastric cancer	0.46	Non-cancer	0.23
Gastric cancer	0.48	Non-cancer	0.28
Gastric cancer	0.49	Non-cancer	0.29
Gastric cancer	0.48	Non-cancer	0.34
Gastric cancer	0.49	Non-cancer	0.36
Gastric cancer	0.43	Non-cancer	0.26
Gastric cancer	0.49	Non-cancer	0.28
Gastric cancer	0.48	Non-cancer	0.19
Gastric cancer	0.47	Non-cancer	0.28
Gastric cancer	0.46	Non-cancer	0.27
Gastric cancer	0.49	Non-cancer	0.19
Gastric cancer	0.45	Non-cancer	0.28

Gastric cancer	0.47	Non-cancer	0.25
Gastric cancer	0.48	Non-cancer	0.38
Gastric cancer	0.46	Non-cancer	0.32
Gastric cancer	0.47	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.36
Gastric cancer	0.49	Non-cancer	0.37
Gastric cancer	0.48	Non-cancer	0.38
Gastric cancer	0.45	Non-cancer	0.36
Gastric cancer	0.47	Non-cancer	0.32
Gastric cancer	0.49	Non-cancer	0.38
Gastric cancer	0.48	Non-cancer	0.38
Gastric cancer	0.46	Non-cancer	0.35
Gastric cancer	0.49	Non-cancer	0.32
Gastric cancer	0.5	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.38
Gastric cancer	0.48	Non-cancer	0.35
Gastric cancer	0.49	Non-cancer	0.36
Gastric cancer	0.48	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.37
Gastric cancer	0.45	Non-cancer	0.34
Gastric cancer	0.46	Non-cancer	0.35
Gastric cancer	0.48	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.36
Gastric cancer	0.44	Non-cancer	0.36
Gastric cancer	0.5	Non-cancer	0.37
Gastric cancer	0.48	Non-cancer	0.35
Gastric cancer	0.47	Non-cancer	0.36
Gastric cancer	0.46	Non-cancer	0.38
Gastric cancer	0.45	Non-cancer	0.31
Gastric cancer	0.48	Non-cancer	0.32
Gastric cancer	0.49	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.34
Gastric cancer	0.47	Non-cancer	0.34
Gastric cancer	0.46	Non-cancer	0.35
Gastric cancer	0.47	Non-cancer	0.33
Gastric cancer	0.47	Non-cancer	0.33
Gastric cancer	0.48	Non-cancer	0.36
Gastric cancer	0.47	Non-cancer	0.37
Gastric cancer	0.49	Non-cancer	0.39
Gastric cancer	0.48	Non-cancer	0.39
Gastric cancer	0.45	Non-cancer	0.41
Gastric cancer	0.46	Non-cancer	0.42
Gastric cancer	0.47	Non-cancer	0.41
Gastric cancer	0.48	Non-cancer	0.42
Gastric cancer	0.5	Non-cancer	0.39

Gastric cancer	0.47	Non-cancer	0.41
Gastric cancer	0.48	Non-cancer	0.42
Gastric cancer	0.45	Non-cancer	0.39
Gastric cancer	0.46	Non-cancer	0.42
Gastric cancer	0.48	Non-cancer	0.41
Gastric cancer	0.51	Non-cancer	0.39
Gastric cancer	0.5	Non-cancer	0.39
Gastric cancer	0.49	Non-cancer	0.42
Gastric cancer	0.47	Non-cancer	0.43
Gastric cancer	0.54	Non-cancer	0.44
Gastric cancer	0.51	Non-cancer	0.44
Gastric cancer	0.48	Non-cancer	0.43
Gastric cancer	0.5	Non-cancer	0.43
Gastric cancer	0.49	Non-cancer	0.44
Gastric cancer	0.52	Non-cancer	0.44
Gastric cancer	0.48	Non-cancer	0.43
Gastric cancer	0.47	Non-cancer	0.44
Gastric cancer	0.51	Non-cancer	0.44
Gastric cancer	0.5	Non-cancer	0.43
Gastric cancer	0.49	Non-cancer	0.45
Gastric cancer	0.48	Non-cancer	0.44
Gastric cancer	0.52	Non-cancer	0.45
Gastric cancer	0.47	Non-cancer	0.43
Gastric cancer	0.48	Non-cancer	0.45
Gastric cancer	0.5	Non-cancer	0.45
Gastric cancer	0.49	Non-cancer	0.43
Gastric cancer	0.51	Non-cancer	0.44
Gastric cancer	0.54	Non-cancer	0.45
Gastric cancer	0.48	Non-cancer	0.43
Gastric cancer	0.52	Non-cancer	0.43
Gastric cancer	0.5	Non-cancer	0.45
Gastric cancer	0.48	Non-cancer	0.44
Gastric cancer	0.48	Non-cancer	0.43
Gastric cancer	0.48	Non-cancer	0.45
Gastric cancer	0.49	Non-cancer	0.44
Gastric cancer	0.52	Non-cancer	0.43
Gastric cancer	0.5	Non-cancer	0.45
Gastric cancer	0.51	Non-cancer	0.43
Gastric cancer	0.48	Non-cancer	0.44
Gastric cancer	0.51	Non-cancer	0.45
Gastric cancer	0.52	Non-cancer	0.46
Gastric cancer	0.5	Non-cancer	0.46
Gastric cancer	0.48	Non-cancer	0.46
Gastric cancer	0.49	Non-cancer	0.46
Gastric cancer	0.51	Non-cancer	0.45

Gastric cancer	0.48	Non-cancer	0.47
Gastric cancer	0.5	Non-cancer	0.46
Gastric cancer	0.52	Non-cancer	0.46
Gastric cancer	0.54	Non-cancer	0.46
Gastric cancer	0.48	Non-cancer	0.46
Gastric cancer	0.51	Non-cancer	0.45
Gastric cancer	0.5	Non-cancer	0.46
Gastric cancer	0.49	Non-cancer	0.49
Gastric cancer	0.52	Non-cancer	0.46
Gastric cancer	0.48	Non-cancer	0.48
Gastric cancer	0.54	Non-cancer	0.49
Gastric cancer	0.51	Non-cancer	0.48
Gastric cancer	0.48	Non-cancer	0.45
Gastric cancer	0.5	Non-cancer	0.51
Gastric cancer	0.49		
Gastric cancer	0.48		
Gastric cancer	0.52		
Gastric cancer	0.48		
Gastric cancer	0.5		
Gastric cancer	0.49		
Gastric cancer	0.51		
Gastric cancer	0.48		
Gastric cancer	0.48		
Gastric cancer	0.52		
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Gastric cancer	0.48		
Gastric cancer	0.49		
Gastric cancer	0.5		
Gastric cancer	0.52		
Gastric cancer	0.5		

Gastric cancer	0.49		
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