SUPPLEMENTARY INFORMATION

SUMO-Activating Enzyme Subunit 1 (SAE1) is a Promising Diagnostic Cancer Metabolism Biomarker of Hepatocellular Carcinoma

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**Supplementary Table S1.** Specific primary antibodies of western blot in this study.

<table>
<thead>
<tr>
<th>No.</th>
<th>Target</th>
<th>Dilution</th>
<th>Source</th>
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<tbody>
<tr>
<td>1</td>
<td>SAE1</td>
<td>1:1000</td>
<td>#13585S Cell Signaling</td>
</tr>
<tr>
<td>2</td>
<td>CDK4</td>
<td>1:1000</td>
<td>#2906 Cell Signaling</td>
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<tr>
<td>3</td>
<td>Cyclin B1</td>
<td>1:500</td>
<td>Sc-245 Santa Cruz</td>
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<tr>
<td>4</td>
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<td>1:1000</td>
<td>#2880 Cell Signaling</td>
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<td>5</td>
<td>KLF9</td>
<td>1:1000</td>
<td>ab227920 Abcam</td>
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<tr>
<td>6</td>
<td>GAPDH</td>
<td>1:500</td>
<td>Sc-47724 Santa Cruz</td>
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Supplementary Figure S1. SAE1 gene expression in HCC. Boxplots showing the mRNA expression levels of SAE1 according to histologic grade (A), genders (B), age at initial pathologic diagnosis (C), TNM classification (D-F), residual tumor (G), vital status (H) and radiation therapy (I).
Supplementary Figure S2. Kaplan-Meier survival and ROC curves of SAE1 prognostic signature. (A) Kaplan-Meier curves of overall survival according to HCC pathologic stages. (B-E) ROC analysis of SAE1 expression in non-tumor versus tumor in stages I, II, III and IV. (F) ROC analysis of SAE1 expression characterized by various clinicopathological factors.
Supplementary Figure S3. Full-size blots of Figure 5E.