

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 31684

Title: The effect of NDC80 in human hepatocellular carcinoma

Reviewer's code: 00006518

Reviewer's country: Taiwan

Science editor: Jing Yu

Date sent for review: 2016-12-06 11:10

Date reviewed: 2017-01-14 11:56

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		[Y] No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Major comments: 1. The NDC80 expression varied greatly in four hepatoma cell lines, can the authors give the possible reasons for this difference? 2. In Fig 1 A & B, the authors give 'relative expression' for each quantitative RT-PCR NDC80 mRNA levels but we noticed that NDC80 expression were significantly lower in any hepatoma cell lines as compared to HCC tumoral tissue, please clarify it. (i.e. The authors need to label GAPDH level as its control for references.) 3. Please explain why SMMC-7721 cell line but not any other cell lines was selected for functional studies. 4. The authors need to put (Figure 3B) in proper position in the text and label cell count unit in Figure 3B left figure. 5. It would be interesting to see if different etiologies of HCC (i.e. HBV, HCV, etc.) shown different NDC80 gene expression in the tumor tissues (or cells), but in Table 1 the authors did not list etiologies of HCC as one of the clinical variable. Minor comments: 1. Recitation of appropriate references are strongly recommended for references 1~7. 2. For Major comments 5, the authors may cite the following article for one of the references and give their comments to it: Liu B et al. ShRNA-mediated silencing of the Ndc80 gene suppress cell proliferation and affected hepatitis B virus-related hepatocellular carcinoma. Clin Res Hepatol Gastroenterol. 2016 Jun;40(3):297-303. doi:



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ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

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Title: The effect of NDC80 in human hepatocellular carcinoma

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

To the authors, Manuscript title: The effect of NDC80 in human hepatocellular carcinoma The paper provides an interesting information on as aspect of the kinetochore protein, NDC80 and hepatocellular carcinoma. This study shows NDC80 gene levels are significantly up-regulated in hepatocellular cancer tissue, that indicates NDC80 has critical role for hepatocellular cancer progression. Then, the paper reveals NDC80 function in SMMC-7721 cells using lentivirus mediated siRNA methods. The paper clearly shows NDC80 is essential for proliferation and colony formation in SMMC-7721 cells. In addition, the authors also found NDC80 reduction in SMMC-7721 induced S-phase arrest. The authors need to be addressed few following concerns before publication. Major concern 1) The authors tested only NDC80 gene expression levels in Figure 1A using cancer tissue whereas the manuscript keep mentioning NDC80 is overexpressed. Why the authors do not test NDC80 proteins levels using same tissue the authors tested mRNA levels? This experiments make strengthen of your conclusion and data quality. 2) The authors mentioned in the introduction, NDC80 is a part of highly conserved Ndoc80 complex. NDC80 tightly binds Nuf2, Spc24 and Spc25. The paper needs to test whether only NDC80 is up-regulated in hepatocellular carcinoma or whole



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Ndc80 complex is up-regulated in hepatocellular carcinoma by qPCR. 3) The authors selected to use SMMC-7721 cells as a representative of hepatocellular cancer. However, it is unclear NDC80 gene and protein are up-regulated in SMMC-7721 compared to control hepatocellular cells. The authors need to show NDC80 genes and protein are overexpressed in SMMC-7721 cells like the authors found in clinical samples in Fig. 1A. 4) Related to 3), it seems like NDC80 gene is significantly up-regulated in Hep3B and Huh-7 cells compared to SMMC-7721 cells. The authors should use one of these cells and repeat the experiments the authors performed using SMMC-7721 cells. Minor concern 1) In the introduction, the authors should not use “our country” since the readers are all over the world. You can say “Especially in China, ...” or other instead. 2) In the results, first subtitle should be “NDC80 gene is overexpressed...” since the authors have tested only gene expression.