

#### 48984 answering reviewers

We would like to show our thanks to the reviewers for their kind and scientific comments. We corrected our manuscript according to the comments and take this place to answer these comments as follows:

Reviewer #1: Zhou et al. aimed to investigate the expression of ATP sensitive K<sup>+</sup> channel subunits in rat liver and their localization in different cells of the liver. The study is very interesting. Importance and probable functions of ATP sensitive K<sup>+</sup> channel subunits in rat liver needs to be explained detailed with a clear basic expression (For example: The ATP-sensitive K<sup>+</sup> channel. Takano M et al. Prog Neurobiol. (1993). Thank you for giving opportunity to review this study.

Answers for comment from this reviewer.

In the revised manuscript, we made more clearly description for the expression of K<sub>ATP</sub> channel subunits in rat liver, for example, in high magnification, that the kir6.1 protein was detected as punctate immunoreactive products (Fig. 2B) and Kir6.2 protein was detected as granular immunoreactive products, indicated that Kir6.1 located in the mitochondria and Kir6.2 in the endoplasmic reticulum as previous study in rat brain. We also added in discussion section that K<sub>ATP</sub> channels are important in liver regeneration by keeping a higher ATP content of the liver tissue during partial hepatectomy since clinically, hepatocyte regeneration is a key point for partial liver transplantation.