1. **No.**

   FP01812176

2. **Title**

   Synergistic Anti-tumor Effect of Aurora-B/-C and Survivin Inhibitors in Lung Cancer Cells

3. **Period**

   2016-2018

4. **Summary**

Evident from the fact that elevated expression of Survivin which is detected in many different types of tumors and involved in acquisition of cancer drug resistance is significantly correlated with poor prognosis of lung cancer patients, targeting of Survivin is expected to be a novel treat strategy of lung cancer patients with elevated level of Survivin. Therefore, we aimed to investigate the synergistic inhibitory effect of Survivin and its regulatory protein Aurora-C on cell proliferation and cell death in lung cancer cells in this research project. The results indicated that simultaneous treatment of both inhibitors effectively reduced cell proliferation compared with sole use of each inhibitor. Further, detail analysis of cell death pathways by Survivin and Aurora-C inhibition suggested a critical role of complex formation between Survivin and Aurora-C in cell death signal. To sum up, our study uncovers novel role of Aurora-C in regulation of survival and autophagy in addition to reasonable synergistic inhibitory effect of combined use of both inhibitor to lung cancer cells.