

28AB-ISMS12 **Detection of Direct Binding Interaction between Lenvatinib and Receptor Tyrosine Kinases by Chemical Probe-based Approach**

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Chemical probe-based binding protein isolation is a powerful tool to demonstrate the direct compound-protein interactions even in complicated biological materials such as intact cells and their robust protein extracts. Herein we describe the chemical probe-based approach proved the interaction of lenvatinib with VEGFR2, FGFR1, PDGFR α and RET fusion kinase in the complicated biological materials from HUVEC and thyroid cancer cell lines. These results supported that lenvatinib is likely to possess a unique anti-tumor activity, in addition to the anti-angiogenic activity, through the interaction with these RTKs.