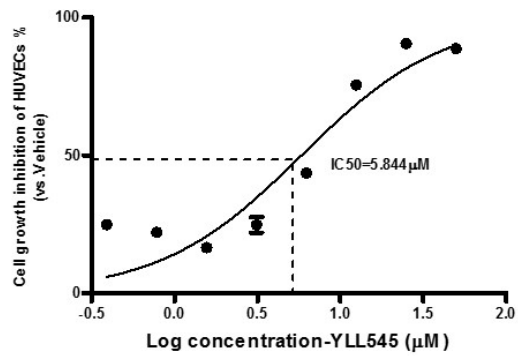


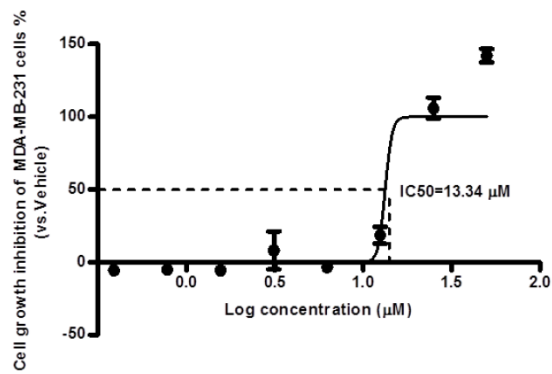
# The novel VEGF receptor 2 inhibitor YLL545 inhibits angiogenesis and growth in breast cancer

## Supplementary Material



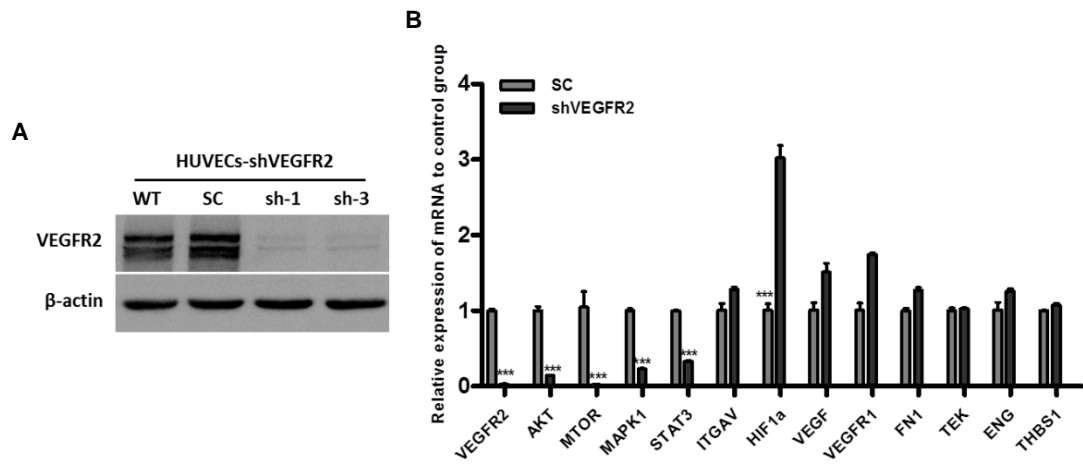
**Figure S1. YLL545 inhibits HUVEC cell viability.**

The cell viability assays were conducted on HUVECs treated with different concentrations of YLL545. At the indicated time points, cell growth inhibition was determined.



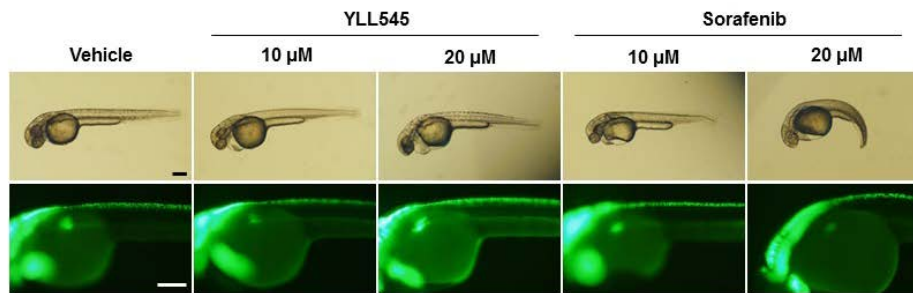
**Figure S2. YLL545 inhibits MDA-MB-231 cell viability.**

The cell viability assays were conducted on MDA-MB-231 cells treated with different concentrations of YLL545. At the indicated time points, cell growth inhibition was determined.



**Figure S3. YLL545 functions via VEGFR2-dependent and -independent pathways.**

**A.** HUVECs were stably transfected with specific shRNA targeting VEGFR2 (shVEGFR2) or a scramble control shRNA (SC). The expression of VEGFR2 was verified by immunoblotting and normalized to the levels of  $\beta$ -actin. **B.** The expression of VEGFR2, AKT, mTOR, MAPK1, STAT3, HIF1 $\alpha$ , VEGF, VEGFR1, ITGAV, FN1, TEK, ENG, and THBS1 were examined by quantitative PCR in shVEGFR2 or SC cells. GAPDH was used to normalize the individual levels. \*\*\* $P < 0.001$  vs respective control in Student's  $t$ -test.



**Figure S4. Cytotoxic effect of YLL545 on zebrafish embryonic development.** 12-hpf transgenic zebrafish (p48 & cmcl:GFP) embryos were incubated with different concentrations of YLL545 and sorafenib. At 36 hpf, fluorescent assays were performed to visualize the growth of zebrafish embryos. Scale bars, 100 μm.