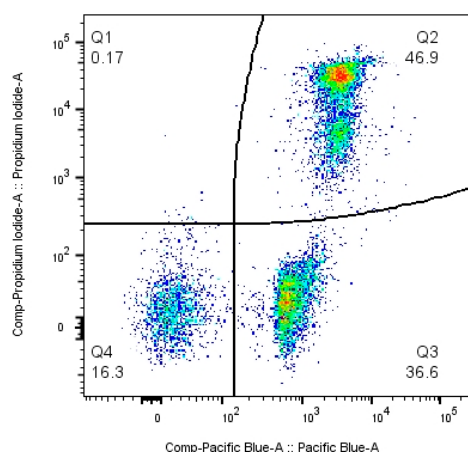
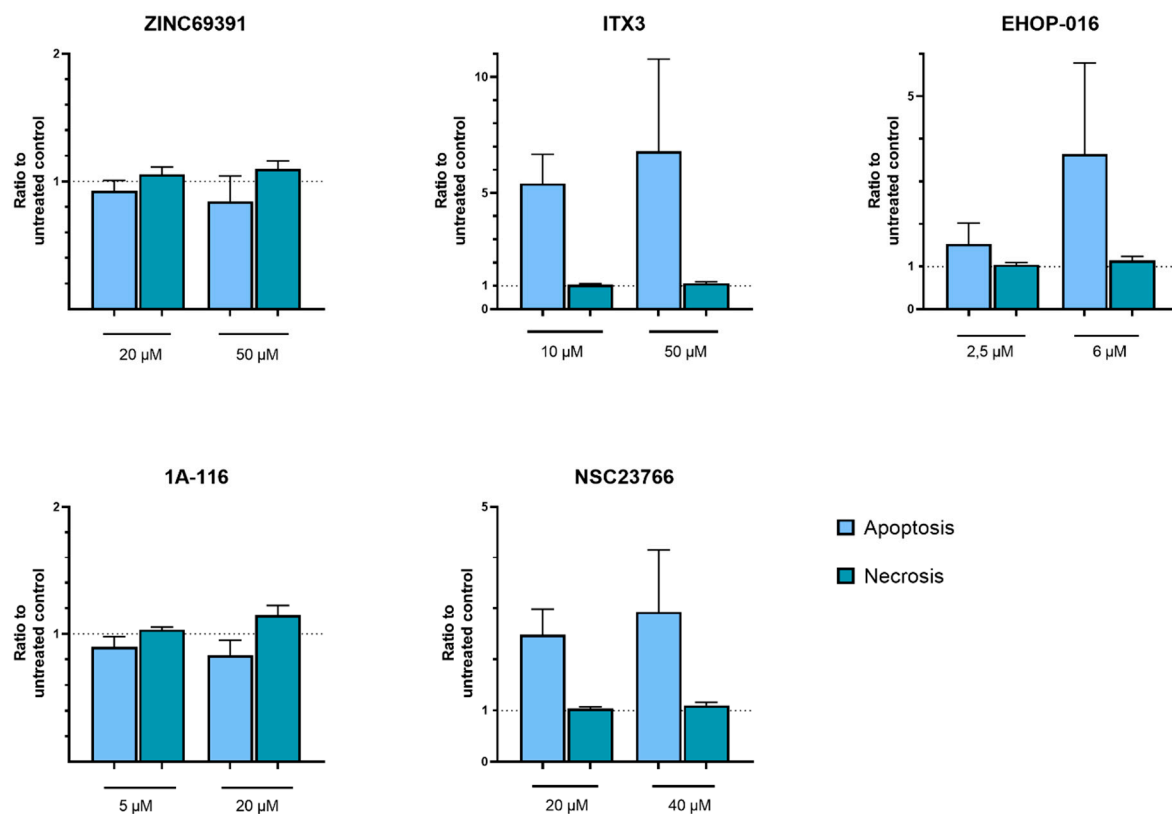


**Figure S1: Chemical structure of the Rac1 inhibitors.** 2D images of the chemical structures are downloaded from PubChem ([pubchem.ncbi.nlm.nih.gov](http://pubchem.ncbi.nlm.nih.gov)).



**Figure S2: Gating strategy.** Example of gating strategy of the Annexin V/Propidium iodide (PI) assay from one patient sample. The square "Q4" includes single-cell events considered negative for both Pacific Blue (Annexin V) on the x-axis and PI staining on the y-axis. "Q4" cells are regarded as viable cells. "Q3" includes Pacific blue positive and PI negative cells, considered apoptotic cells. Cells in "Q2" are considered necrotic cells, staining positive for both markers.



**Figure S3. Induction of apoptosis and necrosis separated for each Rac1 inhibitor.**

Flow cytometric assay to evaluate apoptosis and necrosis after 48 h treatment of 68 patient-derived AML samples with Rac1 inhibitors. There is one graph for each Rac1 inhibitor. The results are presented as a ratio to untreated control, set to 1 (dotted line). Columns are medians with 95% CI as an error. Blue columns indicate apoptosis; green columns indicate necrosis. The concentration of the inhibitors is given on the x-axis. The induction of apoptosis is the main contribution of ITX3, EHOP-016, and NSC23766. Necrosis is the main contribution of the compounds ZINC69391 and 1A-116.