

	NOK		UM-SCC-22B	
	No RT	RT	No RT	RT
red pixels	74855.5	70353	60323	262169.5
Nuclei	565	922.5	419	622
Rp/Nuc	129.71 ± 25.11	72.02 ± 23.42	144.39 ± 35.31	439.56 ± 68.29
ΔHIF/Nuc	0.56 ± 0.21		3.04 ± 0.88	

Supplementary Table S1: This table lists the average values for the image parameters for each field of view including the amount of number of red pixels (HIF-1 α expression), etc. Statistical comparison was based on Rp/Nuc measure which is HIF-1 α signal normalized to cell count. The error value for Δ HIF/Nuc was calculated by using propagation of uncertainty for a ratio.

Table S1. Raw data used for immunohistochemical analysis of HIF-1 expression in NOK and UM-SCC-22B. Because cells were fixed, it was necessary to collect data from each experimental group. These data do not represent “before and after” treatment. HIF-1 was quantified by counting objects with a minimum size of 25 pixels in the red channel. Nuclei were counted by summing the total number of discrete bodies in the blue channel. The number of red pixels was normalized to the number of nuclei to determine the change in HIF-1 per cell. These values were then averaged to make the statistical comparison. Propagation of uncertainty was used to calculate the error value for the HIF/nucleus metric listed in this table.