## **Supplementary Information**



**Figure S1.** Percent of viable cells determined by MTT assay. All values are presented using multiple comparisons ANOVA test. Paired samples were compared using the Tukey HSD *post-hoc* test (Table S1) p < 0.05 was considered statistically significant. Photodynamic therapy by means of 5-ALA or its methyl ester (Met-ALA) decreased the viability of SW620 cells. Cells were treated with equal concentration of above precursors for 4 h (5-ALA, Met-ALA) and then irradiated with 4.5 J/cm<sup>2</sup> at 630 ± 20 nm (ir, irradiation). Cell viability was measured after 24 h following the irradiation.

Probes	{1}	{2}	{3}	<b>{4}</b>	{5}	<b>{6}</b>
	M = 100	<i>M</i> = 97	<i>M</i> = 109	<i>M</i> = 67	<i>M</i> = 95	<i>M</i> = 59
{1} Control		<i>p</i> = 0.868	<i>p</i> = 0.043	<i>p</i> < 0.001	<i>p</i> = 0.611	<i>p</i> < 0.001
{2} Control ir	<i>p</i> = 0.868		<i>p</i> = 0.007	<i>p</i> < 0.001	<i>p</i> = 0.996	<i>p</i> < 0.001
{3} ALA	<i>p</i> = 0.043	<i>p</i> = 0.007		<i>p</i> < 0.001	<i>p</i> = 0.003	<i>p</i> < 0.001
{4} ALA ir	<i>p</i> < 0.001	<i>p</i> < 0.001	<i>p</i> < 0.001		<i>p</i> < 0.001	<i>p</i> = 0.096
{5} Met-ALA	<i>p</i> = 0.611	<i>p</i> = 0.996	<i>p</i> = 0.003	<i>p</i> < 0.001		<i>p</i> < 0.001
{6} Met-ALA ir	<i>p</i> < 0.001	<i>p</i> < 0.001	<i>p</i> < 0.001	<i>p</i> = 0.096	<i>p</i> < 0.001	

Table S1. Tukey HSD *post-hoc* test of MTT assay.

M, mean; marked differences are significant at p < 0.05.



**Figure S2.** Results from ELISA test performed on SW620 human colon cancer cells exposed to 3 mM 5-ALA or met-ALA and 4.5 J/cm<sup>2</sup> light or left without a light treatment, and in control cells (no precursor, no light) or light only. A significant increase in IGF-2 concentration was found after PDT and light only (p < 0.05). Statistical analysis were preformed using multiple comparisons ANOVA test. Paired samples were compared using the Tukey HSD *post-hoc* test (Table S2) p < 0.05 was considered statistically significant. Data are presented as means with 5% statistical error from 2 experiments. ir, irradiation.

Probes	{1}	<b>{2}</b>	<b>{3</b> }	<b>{4}</b>	<b>{5}</b>	<b>{6}</b>			
	M = 25	M = 111	<i>M</i> = 19	<i>M</i> = 130	M = 28	<i>M</i> = 155			
{1} Control		<i>p</i> < 0.001	<i>p</i> = 0.594	<i>p</i> < 0.001	<i>p</i> = 0.950	<i>p</i> < 0.001			
{2} Control ir	<i>p</i> < 0.001		<i>p</i> < 0.001	<i>p</i> = 0.014	<i>p</i> < 0.001	<i>p</i> < 0.001			
{3} ALA	<i>p</i> = 0.594	<i>p</i> < 0.001		<i>p</i> < 0.001	<i>p</i> = 0.257	<i>p</i> < 0.001			
{4} ALA ir	<i>p</i> < 0.001	<i>p</i> = 0.014	<i>p</i> < 0.001		<i>p</i> < 0.001	<i>p</i> = 0.004			
{5} Met-ALA	<i>p</i> = 0.950	<i>p</i> < 0.001	<i>p</i> = 0.257	<i>p</i> < 0.001		<i>p</i> < 0.001			
{6} Met-ALA ir	<i>p</i> < 0.001	<i>p</i> < 0.001	<i>p</i> < 0.001	<i>p</i> = 0.004	<i>p</i> < 0.001				

Table 2. Tukey HSD *post-hoc* test.

M, mean; marked differences are significant at p < 0.05.