

October 5, 2011
SBI ALA promo Co., Ltd.

The study Results of ALA Presented Japanese Cancer Association, 70th Annual Meeting (1)

- Finding of ALA's life-prolonging effect in mice with cancer -

SBI ALA promo Co., Ltd. (Head Office: Minato-ku, Tokyo; Representative Director and CEO: Yoshitaka Kitao; "SBI ALA promo"), a subsidiary of SBI Holdings, Inc. that conducts research and development of cosmetics, health foods, and pharmaceuticals using 5-aminolevulinic acid (ALA)^{*1} has discovered that administration of ALA had the effect of controlling debilitation of cancer-bearing mice and prolonging their life, in joint research with Tokyo Institute of Technology (Location: Meguro-ku, Tokyo; President: Kenichi Iga).

The study results were presented at the 70th Annual Meeting of the Japanese Cancer Association held on October 4, 2011.

In the study, the effect of ALA and iron for PC3, the human prostate cancer cell line, implanted in BALB/c nude mice were examined. The results showed no significant difference in the size of implanted cancer, but the number of mice dead or extremely debilitated was found to be significantly smaller in the ALA and iron-administered group than in the water-administered group. Besides, an experiment with non-cancer-bearing mice revealed that ALA enhanced the energy production of mitochondria.

Since mono-administration of ALA with subsequent light irradiation makes it possible to diagnose tumor sites and treat cancer with active oxygen generated by light irradiation, the compound is attracting attention as a photosensitizer for photodynamic therapy and diagnosis^{*2}. Light irradiation was not used in the joint study, and this suggests that the admixture of ALA and iron activated the energy production of normal cells, thus controlling debilitation associated with the advance of cancer.

While the application of the compound to human treatment is a challenge for the future, SBI ALA promo will make further efforts to pursue ALA research so that it may help the many patients who are struggling with cancer. Research outcomes and up-to-date information about ALA will be available also from ALAplus Lab (URL: <http://www.ala-plus.jp/>).

Glossary:

***1: 5-aminolevulinic acid (ALA)**



An amino acid created by mitochondria in the body. It is an important substance that serves as protein material related to energy production in the form of hemes and cytochromes, and its productivity is known to decrease with age. ALA is contained in shochu distillation remnants, red wine and food such as radish sprouts. In addition, it is known as a material forming chloroplasts in plants, and fertilizers and health foods containing ALA are among its practical applications.

***2: Photodynamic Diagnosis (PDD) and Photodynamic Treatment (PDT)**

Photodynamic Diagnosis (PDD): When cancer cells uptake ALA and absorb blue light, they emit red fluorescent light. SBI ALA promo introduced ALA as intraoperative diagnostic agent from German company and currently Phase III trial is proceeding in Japan.

Photodynamic Treatment (PDT): When ALA is applied to skin and exposed to red light, radical oxide is induced inside cancer cells and lead them suicide. PDT is approved as a treatment for skin cancer in Europe, and attracts attention for its cosmetic advantage that it leaves no scars.