

ABSTRACT

The present disclosure provides cells that are competitive with cancer cells without becoming starved or exhausted even in a glucose-depleted environment. More specifically, the present disclosure provides T cells with enhanced glucose uptake ability, in which the T cells are modified so that expression of a glucose transporter is regulated in the T cells in response to a change in tumor microenvironment conditions, and/or include a nucleic acid sequence encoding a glucose transporter, the nucleic acid sequence being operably linked to a tumor microenvironment-sensing element that senses a change in tumor microenvironment conditions.

[No suitable figure]