

Title (en)

ANIMAL TISSUE WITH CARBOHYDRATE ANTIGENS COMPATIBLE FOR HUMAN TRANSPLANTATION

Title (de)

TIERISCHES GEWEBE MIT KOHLENHYDRATANTIGENEN GEEIGNET FÜR DIE HUMANTRANSPLANTATION

Title (fr)

TISSU ANIMAL COMPORTANT DES ANTIGENES CARBOHYDRATES COMPATIBLES EN VUE D'UNE GREFFE HUMAINE

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Application

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Priority

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Abstract (en)

[origin: WO02074948A2] This disclosure provides a system for generating animal tissue with carbohydrate antigens that are compatible for transplantation into human patients. The tissue is inactivated homozygously for expression of alpha (1,3)galactosyltransferase, and comprises a transgene for alpha (1,2)fucosyltransferase. As a result, cell-surface N-acetyl lactosamine is not converted to the Gal alpha (1,3)Gal xenoantigen. Instead, it is converted to Fuc alpha (1,2)Gal, which is H substance, a self-antigen in humans. The tissue may also contain A or B-transferase, which will cause H substance to be converted into other ABO blood group antigens for compatibility with patients of the same blood type. This invention improves transplant compatibility of the xenograft tissue by lessening the risk of reactions resulting from xenoantigen and unconverted N-acetyl lactosamine acceptor determinants.

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