Differentially Expressed in Squamous Cell Carcinoma Gene 1 (DESC 1)

Published date: Feb. 1, 2012

Technology description

Summary

Researchers at The Ohio State University have provided a novel method for diagnosing and treating squamous cell carcinoma and prostate cancer. This invention is based upon the detection of a specific gene (serine protease gene) encoding a human protein called Differentially Expressed in Squamous Cell Carcinoma Gene-1 or "DESC1". The invention also provides for DESC1 vectors, host cells, antibodies directed to DESC1 polypeptides, hybridization probes, and primers useful in the method of detecting DESC1 mRNA.

Squamous cell carcinoma is the second most common form of skin cancer. This condition is typically diagnosed by visual examination of the morphological characteristics (shape, form, arrangement, etc.) of tissue samples by a cytologist or pathologist. The potential for human error inherent in these methods has thus made it desirable to develop more reliable and efficient techniques. Investigation into the underlying genetics of the disease has led to the identification of several genes of interest. The DESC1 gene, for instance, is expressed in significant levels in epithelial tissues of the head, neck, oral mucosa, tonsils, prostate, testes, and skin in healthy individuals. However, the gene is repressed in squamous cell carcinoma of the head, neck, prostate, and testes, as compared to normal tissue specimens. It has also been determined that DESC1 is not expressed in colon carcinoma, lung carcinoma, melanoma, or HeLa cells. This gene may prove a useful marker for the detection and treatment of squamous cell carcinoma and other skin cancers.

Institution

The Ohio State University

联系我们

叶先生

电 话：021-65679356

手 机：13414935137

邮 箱：yeyingsheng@zf-ym.com