Bundesamt für
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Position statement of the ZKBS on the cell line CaSkI

The cell line CaSki is a human cervical carcinoma cell line with about 600 copies of human papilloma virus type 16 (HPV 16) DNA integrated into its genome. Analysis of the integrated HPV 16 DNA showed that it has either remained unaltered or has acquired deletions or rearrangements. The inserted virus copies are mainly present as head-to-tail repetitions. Viral particles are not formed in the cell line if it is kept as a monolayer culture.

If the cell line CaSki is transferred to SCID mice, they grow tumors. Amplification of integrated HPV 16 DNA and the formation of viral particles take place in the tumors.

Position statement:

The culture conditions of the CaSki cell line are relevant for the formation of virus particles.

a. Monolayer culture

   If the CaSki cell line is maintained as a monolayer-culture, the formation and release of virus particles is not expected. As a recipient organism in genetic engineering operations it is allocated to **risk group 1**. If it is used as the donor organism, it is to be considered that it contains a number of copies of the complete genome of HPV 16, a virus of risk group 2, which could be transferred through genetic engineering operations. As the donor organism in genetic engineering operations it is therefore to be allocated to **risk group 2**.

b. Tumor

   If the CaSki cell line is transferred to an animal, a tumor can develop, and it cannot be excluded that it produces and releases HPV 16 particles. If cells of a tumor induced by CaSki in an animal are used as donor or recipient organisms in genetic engineering operations, these cells are to be allocated to **risk group 2**.

c. Raft culture

   If the CaSki cell line is kept as a typical organ or raft culture, it also cannot be excluded that it produces and releases HPV 16 particles. If CaSkiI cell lines kept in this manner are used as donor or recipient organisms in genetic engineering operations, these cells are to be allocated to **risk group 2**.

In addition, reference is made to the regulations of the Infection Protection Act and the Biological Materials Regulations.

References:

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