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# ProductInformation

**vivoSIS® Cell Culture Inserts**
**(Smooth Side Up)**

Product Number **V5013 and V5263**
Storage Temperature 2-8 °C

## Product Description

vivoSIS cell culture inserts are extracellular matrix substrates mounted in a plastic ring. The inserts are fully hydrated and packaged in purified water. The material contains growth factors, proteoglycans, glycoproteins, glycosaminoglycans, and at least three types of collagen (Types I, III, V). The inserts are not synthetic, but a naturally occurring extracellular matrix derived from porcine small intestine.

**NOTE:** The matrix in these inserts has two different sides. One side is rough and has high porosity, and the other side is smooth and has low porosity. These inserts have the low porosity (smooth) side facing upward in the plastic frame. Cells cultured on the smooth side often form monolayers and polylayers while cells cultured on the opposite side (rough side) often migrate into the matrix. The plastic frame for the insert is blue.

The vivoSIS cell culture inserts have been used for various cell culture applications. They provide a hydrated extracellular matrix for culturing cells. They can be used as a substrate for cell differentiation and cell proliferation with a variety of primary and immortal cell lines. The inserts have an 8 mm diameter membrane area and an outer diameter of 13.5mm. The inserts are provided in different heights. The shorter inserts can be used in the opposite orientation and floated in cell culture media. The inserts are designed to fit easily into a single well of a 24-well culture plate.

Each lot has been tested for the absence of bacteria, fungi, and mycoplasma.

vivoSIS material has been tested and shown to contain < 0.1 EU/g (Limulus Amoebocyte Lysate Assay).

vivoSIS cell culture inserts are aseptically packaged in a sealed pouch.

## Storage/Stability

Store vivoSIS cell culture inserts at 2-8 °C. See package label for expiration dates.

## Instructions for Use

Use aseptic technique when handling. Each insert is wet and aseptic but will dehydrate if not kept hydrated. Dehydration and rehydration are not recommended because the cycle changes the physical structure of the disks. Equilibrate the vivoSIS inserts to culture conditions by rinsing in at least two changes of PBS, pH 7.4, serum-free medium or other physiologic buffers. Immediately prior to the application of cells to the vivoSIS matrix, remove the equilibration solution. Harvest cells in complete medium and seed at the desired density. Incubate culture wells under the appropriate environmental conditions. Change the medium 2-3 times weekly or as needed. At desired times, the substrate and associated cells can be fixed and cross-sectioned for histological examination. Labeling techniques may also be used in conjunction with light, fluorescence or confocal microscopy to obtain topographical and three-dimensional information.

## Precautions and Disclaimer

After use, dispose of material according to applicable state and federal regulations. Do not allow residues to come into contact with ruminating animals or swine.

The inserts are not for use in humans or *in vitro* diagnostics.

## References

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3. Badylak, S., et al., Endothelial cell adherence to small intestinal submucosa: An acellular bioscaffold. Biomaterials, **20,** 2257-2263 (1999).
4. Peel, S. A. F., et al., Formation of a SIS-cartilage composite graft *in vitro* and its use in the repair of articular cartilage defects. Tissue Eng., **4,** 143-155(1998).

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