

Cornea Neovascularization Assay

Scope of application

- In this Assay the neovascularization of the physiologically avascular cornea is used to **identify pro- or anti-angiogenic properties** of different substances.

Models

Corneal pockets are created with a modified von Graefe cataract knife. Into each pocket, a sucrose aluminium sulphate pellet containing e.g. VEGF is implanted ~1.0mm from the corneal limbus artery. The corneas are routinely examined by slit-lamp biomicroscopy. Vessel length and circumference of the limbus are measured to quantify angiogenic effects. On the day of sacrifice, animals are perfused with fluorescent dyes to stain the developed vessels.

In combination with prior bone-marrow transplantation, this model can also be used to investigate the effect of different compounds on endothelial progenitor cells (EPCs).

