BioDOptix® amniotic extracellular matrix is a dehydrated membrane allograft derived from human amniotic tissue that is intended for use in ocular tissue repair.

The science behind human placental tissue

Human amniotic membrane has been used to treat a variety of wounds for over 100 years1 and the first reported use for ocular surface defects was reported in 1940 by De Roth.2 Research has shown that placental tissues can promote new tissue formation, reduce scar tissue formation, modulate inflammation and pain and may have antimicrobial effects.3,4

The native human amniotic membrane is composed of:

• A three-dimensional architecture to support reconstruction of damaged tissue.
• Growth factors, as well as other proteins, cytokines and peptides

BioDOptix preserves the key components of native human amniotic membrane using the Dryflex® processing technology. Laboratory analyses and assays demonstrated that this process:

• Preserves the continuous, intact epithelium, basement membrane, compact and fibroblast layers of the amniotic tissue, as illustrated in the histology section on the right.5
• Maintained the presence of cytokines and growth factors with particularly high quantities of EGF, PDGF, TGF-, and TIMPs 1 and 2.6

References: