Qura GUIDE 3D printing resin for surgical guides

Version 1.0

QuraGUIDE is a biocompatible certified Class I medical device for the printing of dental surgical guide using high resolution 3D printers. It has high flexural strength, low shrinkage and excellent cytocompatibility. It has been approved by TFDA, and it can be used for DLP and SLA 3D printers.

Procedures for post-processing

1. Printing

Pour QuraGUIDE resin into the resin tank of a 3D printer, and import the surgical guide model into the 3D printer for printing.

2. Washing

Remove the surgical guide from the build platform and soak in IPA (isopropanol) or 95% ethanol to remove the extra resin. Use an ultrasonic cleaner if necessary. Please be aware that IPA and ethanol must NOT be placed directly in the tank of the ultrasonic cleaner.

3. Drying

Ensure the surgical guide clean. Do not remain liquid resin or ethanol.

4. Post-Curing

For post-curing, the curing energy and curing time depends on the post-curing unit. For example, a good surface hardness and biocompatibility can be achieved by 10 minutes of post-curing using a 36W (12W CCFL + 24W LED) UV curing box at 405nm.

Sterilization

Sterilization of the printed surgical guide using 70% ethanol is recommended.

Material Properties

Property	Value
Flexural Strength	89.15 MPa
Flexural Modulus	1907 MPa

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Hardness	80 Shore D
Viscosity	0.72 Pa·s

Biocompatibility testing (According to EN-ISO 10993-5:2009)

Sample	Received Date	Result 1: Morphology	Result 2: MTT assay	Average	Cytotoxicity
Qura guide	2018.01.26	0	0	0	None

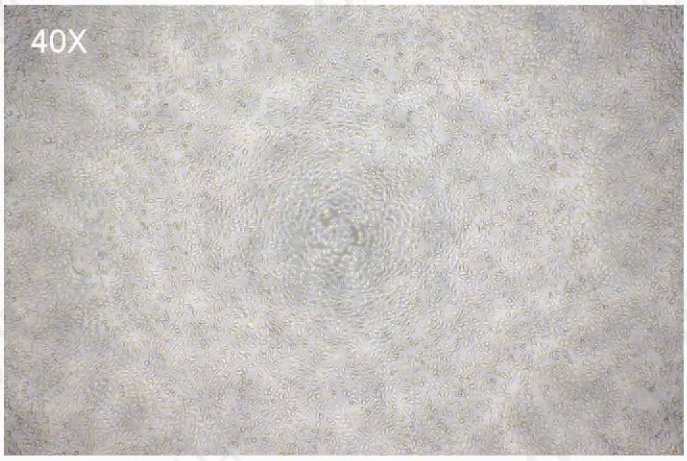
Cytotoxicity: 0 = None, 0~1 = Slight, 1~2 = Mild, 2~3 = Moderate, 3~4 = Severe.

Extraction medium condition

Sample	Received Date	Surface Area (cm^2)	Volume of Extraction Medium (ml)	Extration Temp (℃)
QuraGUIDE	2018.01.26	6	2	37

Qualitative morphological grading

1. QuraGUIDE (0)





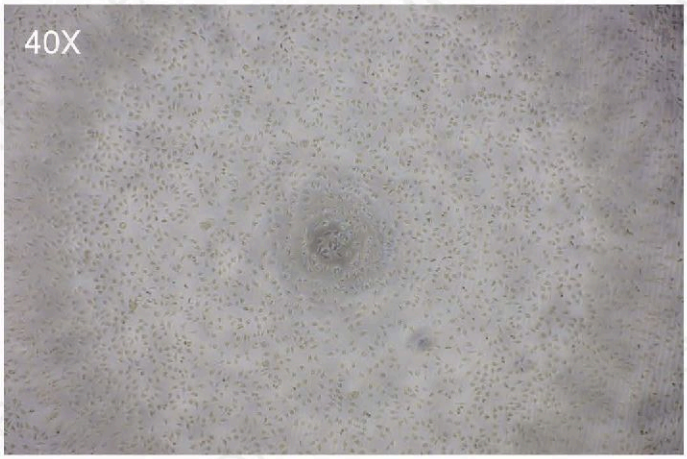
2. Negative Control (0)

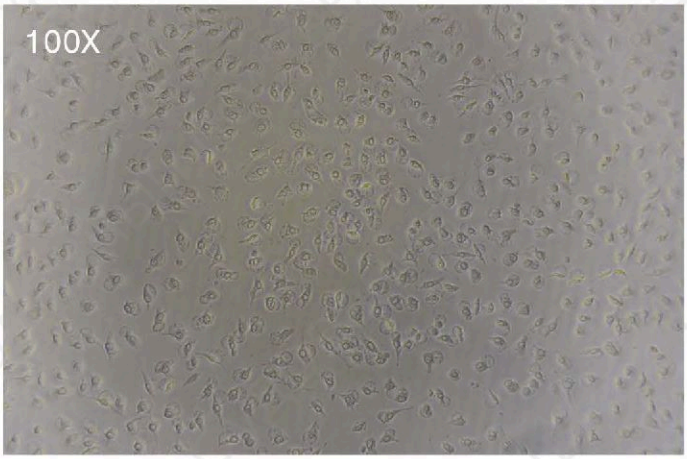




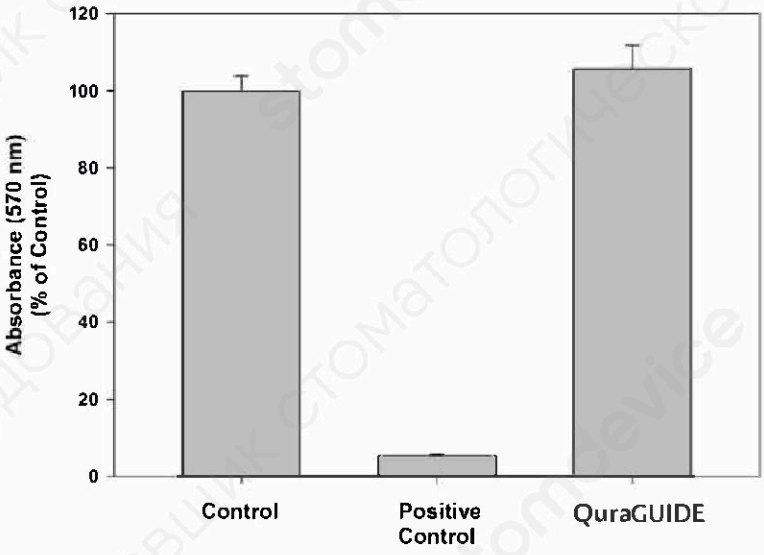
https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

3. Positive Control (4)





MTT cytotoxicity test



MTT test grading

Sample	Cytotoxicity (%)	MTT test grading
QuraGUIDE	-5,72%	0
Positive Control	94.55%	4

Grade: < 10% = 0 10~30% = 1 30~50% = 2 50~70% = 3 > 70% = 4

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ