



BY  
SYNENTEC

## THE DRUG DEVELOPMENT ACCELERATOR

**myrImager**  
Designed to enable

 myrImager



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 myrTissue

- > Cardio
- > Skeletal
- > Stroma

 myrPlate

Parallel 48-myrTissue Culture

 myrScreen

High-Content  
Videoptic Screen

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# PRODUCT INFORMATION

## TECHNICAL INFORMATION

- › Dimensions: HxWxD = 20 x 27 x 50 cm (incl. handle)
- › Weight: 12.5 kg
- › Power: via USB
- › Operation: 24/7 at 37 °C and up to 98% humidity
- › Frame rate: 50 fps @ 8 bit / parallel 48-well imaging

Sales and distribution by **SYNENTEC**

myrCell



myrTissue



myrPlate



myrImager



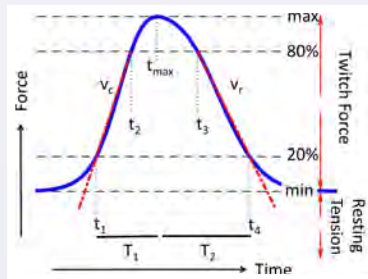
myrScreen

## DESIGNED FOR PHENOTYPING OF

- › myrTissue-Cardio
- › myrTissue-Skeletal
- › myrTissue-Stroma

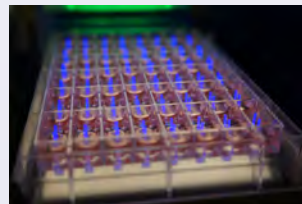
## ENDPOINTS

- › Active force
- › Passive force
- › Rate and rhythm
- › Contraction kinetics



## USE WITH myrPlate CULTURES ONLY

- › TM4 - E-modulus: 3.63 N/mm<sup>2</sup>
- › TM5 - E-modulus: 4.73 N/mm<sup>2</sup>
- › TM6 - E-modulus: 6.08 N/mm<sup>2</sup>
- › TM7 - E-modulus: 8.33 N/mm<sup>2</sup>
- › TM8 - E-modulus: 12.46 N/mm<sup>2</sup>
- › TM9 - E-modulus: 20.49 N/mm<sup>2</sup>



E-modulus calculated according to Kunz and Studer (Kunststoffe international 96 (6) (2006) 92–94)

## KEY BENEFITS AT A GLANCE

- › *Phenotypic screens in human macro-scale tissue / organoids*
- › *Designed for operations in standard cell culture incubators*
- › *Best-in-class tissue / organoid phenotyping enabled by myrPlate cultures in myrImager*
- › *Longitudinal studies with repeated measurements in up to 12 month myrTissue cultures in myrPlates*

## REFERENCES

**Heart Muscle:** Tiburcy et al. 2017 Circulation, Streckfuss-Bömeke et al. 2017 J Mol Cell Cardiol, Long et al. 2018 Sci Adv, Tiburcy et al. 2020 STAR Protoc, Hanses et al. 2020 Circulation, Fomin et al. 2021 Sci Transl Med, Del Campo et al. 2022 Cardiovasc Res, Seiberts et al. 2024 Cardiovasc Res, Kyriakopoulou et al. 2024 Nat Cardiovasc Res, WO2015/025030, WO2015/040142, WO2017/207431  
**Skeletal Muscle:** Shahriyari et al. 2022 J Cachexia Sarcopenia Muscle, Shahriyari et al. 2023 STAR Protoc, WO2017/207431, WO2021/074126  
**Connective tissue:** Santos et al. 2019 J Mol Cell Cardiol, Kittana et al. 2021 Int J Nanomedicine, Santos et al. 2021 J Vis Exp, Santos et al. 2022 Biomater Adv, WO2017/207431, WO2022/023451

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