# SI-H Basic Muscle Tester

*Basic research system for mechanical measurements of intact muscles*

## Key Experiments

- Measure intact muscle responses to electrical stimulation or tetanus
- Measure myomechanical properties of contractions and relaxation in muscle strips
- Perform eccentric contractions in skeletal muscle
- Twitch amplitude and kinetics analysis, time to peak, (50%) relaxation velocities, starling curve, diastolic force development with Muscledata Software
- A linear motor plus control units can be adapted to measure mechanical muscle properties such as slack test, isotonic release, constant velocity release, stretch release, vibration
- Simultaneous measurement of the sarcomere length is possible by laser diode diffraction.

## Accessories

- Cuvette systems for perfusion and combined optical measurements
- Laser diode for sarcomere length in skinned and intact muscle
- Software-controlled stimulator and tetanizer
- Removable binocular microscope for mounting and dissection on the bench
- Motor action control panel for hardware control while using your own data acquisition system
- Compatible with KG force transducer series and specialty mounting supports for cells and tissues


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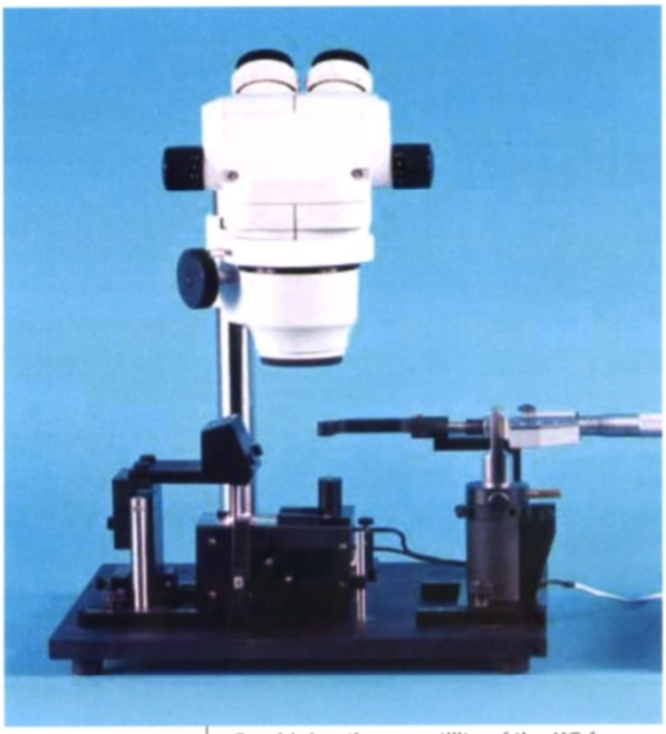

Combining the versatility of the KG force transducers and a solid platform for mechanical studies, the Muscle Tester (Basic Research System) can be equipped with a linear motor and laser diode for running advanced muscle studies.

With the Basic Tester, at least four key experimental areas of muscle research can be examined.

- By measuring the myomechanical properties of contracting and relaxing muscle strips, scientists can measure intact muscle responses to electrical stimulation or tetanus.
- Measure twitch amplitude and kinetics analysis, time to peak, 50% relaxation velocities, starling curve and diastolic force development.
- Add a linear motor with control units to measure mechanical muscle properties like slack-test, isotonic release, constant velocity release, stretch release, vibration studies, after-loaded contractions and eccentric contractions.
- Add a laser diode for simultaneous measurement of the sarcomere length.

## Features

- Small footprint and economical setup
- Data Recording and Analysis included
- Controlled heating from 30-42°C, and optional cooling to 5°C
- Modular design for flexibility when upgrading
- Constructed with corrosion-free materials (Stainless steel, anodized aluminium, plastic)
- Includes a set of preparation mounting devices
- Two-chamber cuvette system for oxygenating the incubation medium and mounting the preparation
- Additional accessories include binocular microscope, vacuum system for changing the solution, temperature controlled solution container and a stimulator

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