

MICROMANIPULATOR SYSTEM WITH INVERTED MICROSCOPE



Instrument details

Make : Eppendorf and Olympus

Model : U-LH100L-3

Application

Using this system, living cells or genetic material can be manipulated with maximum sample protection. With the aid of this system, even the very finest structures can be visible. The system has very good reproducibility capacity as well as vibration-free application. Besides conventional, routine IVF (in-vitro fertilization) applications, the system is also able to perform additional applications such as ICSI (intra-cytoplasmic sperm injection).

User instructions

- 1. Sample should be pure and devoid of contamination.**
- 2. Maintain cold chain during sample transportation.**

REAL-TIME PCR SYSTEM



Instrument details

Make : Applied Biosystems
Model : StepOne Plus 272004383

Application

The system can carry out in a thermal cycler with the capacity to illuminate each sample with a beam of light of at least one specified wavelength and detect the fluorescence emitted by the excited fluorophore. It can also rapidly heat and chill samples, thereby taking advantage of the physicochemical properties of the nucleic acids and DNA polymerase. This system can be used to quantify nucleic acids by two common methods viz. relative quantification and absolute quantification.

User instructions

1. Sample should be pure and devoid of contamination
2. Quantification and quality assessment of nucleic acid

Atomic Absorption Spectrophotometer



Instrument details

Make : Thermofisher Scientific

Model : iCE 3000



Application

Estimation of mineral composition in food and feed samples. The lamps are available for estimating the following elements: Ca, Mg, Zn, Cu, Co, Fe, Mn and Se.

User instructions

- 1. Sample should be pure and devoid of contamination**
- 2. Sample size should be in the range of 50-100g.**

Cell transfection system



Instrument details

Make : ThermoFisher Scientific
Model : Neon Transfection system

Application

To conduct transfection of RNA, DNA and protein into mammalian cells.

User instructions

1. Pure RNA, DNA and protein are required.
2. Cells should be healthy and free from contamination
3. Separate protocols to be standardised for each plasmid and cell lines.

Gas Chromatograph with auto sampler



Instrument details

Make : ThermoFisher Scientific

Model : Ceres 800 plus

Application

A gas chromatograph is an instrument for qualitative and quantitative determination of volatile compounds. Different compounds are retained/eliminated depending upon chemical properties such as boiling point, structure, molecular weight etc as well as factors like carrier gas flow rate, column length and the temperature. Based on retention data and other parameters chemical substances are identified and quantified.

User instructions

1. Sample should be pure, volatile and devoid of contamination
2. Sample size should be in the range of 10-20g.
3. Sample should not contain any particulate matter and soluble in organic solvents

Small volume spectrophotometer



Instrument details

Make : Picodrop, UK
Model : Picodrop

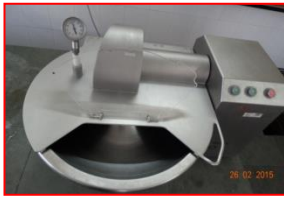
Application

Small volume spectrophotometer is used for quantification of RNA and DNA. The instrument can also provide absorbance at different wavelengths, which will give idea about purity of the sample.

User instructions

1. Two microlitre of sample.
2. The sample should be pure and free from particulate matter.

Facility for processing value added pork products



Instruments available

- Meat mincer (Make: Sirman, Italy)
- Bowl chopper (Make: Mado, Germany)
- Sausage stuffer (Make: Sirman, Italy)
- Pickle Injector (Make: Günter, Germany)
- Vacuum tumbler (Make: Biro, USA)
- Vacuum packing machine (Make: Sevanna, India)
- Smoke oven (Make: Smoke Rite, Australia)
- Retort processing machine (Make: Lakshmi Engineering , India)

Applications

Facilities are available for processing an array of value added pork products viz.

- COMMINUTED PORK PRODUCTS
- RESTRUCTURED PORK PRODUCTS
- ENROBED PORK PRODUCTS
- CURED AND SMOKED PORK
- TRADITIONAL PORK PRODUCTS
- SHELF STABLE PORK CURRY PRODUCTS

User instructions

Institute offers this facility to interested private entrepreneurs on non-exclusive basis under PPP mode after signing MoU. The modalities can be finalized through discussions.

NIR Analyzer



Instrument details

Make : Perten Instruments, Sweden
Model : DA 7250



Application

The NIR Analyzer analyzes samples in quick succession, and can determine moisture, protein, fat, ash, and many other parameters.

User instructions

- 1. Sample must be pure and devoid of contaminants**
- 2. Sample weight should be in between 150-200 g**
- 3. Liquid samples should have constant weight**

Texture Analyzer

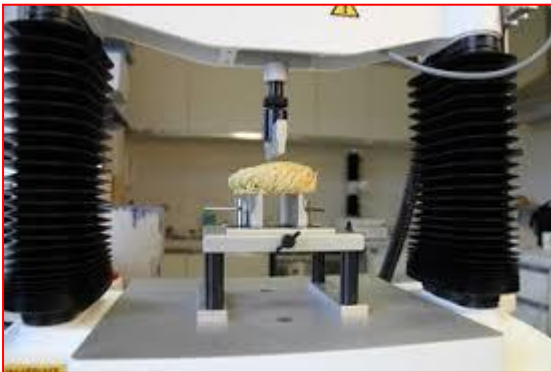


Instrument details

Make : Stable Microsystems, U.K.
Model : TA XD Plus

Application

It is capable of measuring physical characteristics of food products such as hardness, fracturability, adhesiveness, cohesiveness, resilience, gumminess, shear force etc.



User instructions

1. Samples shall be of solid blocks for TPA and shear force
2. Sample weight should be in between 150-200 g