

## Enzymatic dosage from rat heart

**Precellys®24**

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LYSIS & HOMOGENIZATION AUTOMATED EQUIPMENT



### ■ Context

Inserm Unit 769 aims at understanding how cardiac cells are functioning in normal or pathological states. Various studies are performed to estimate the metabolic phenotype of the rat heart by enzymatic dosage.

### ■ Material

- Precellys®24
- Precellys® kit CK14 (small ceramic beads)
- Sample : rat heart (40mg)
- Buffer : HEPES 5mM, EGTA 1mM, Triton 0.1%, DTT 1mM, pH 8.7 (250µl)

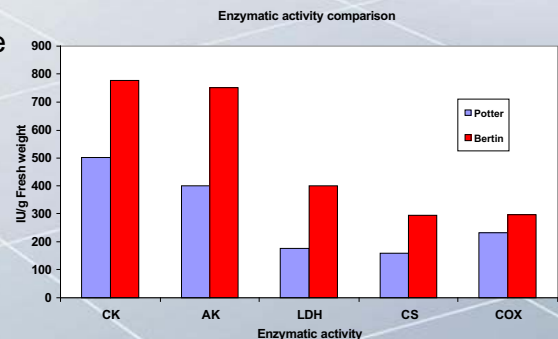
### ■ Protocol / Parameters

- Precellys®24 parameters : 6500 rpm, 2 x 8 sec (break 8 sec)

### ■ Results

Evaluation of five specific enzymatic activities using a standard enzymatic dosage for two sample preparation methods :

- CK : creatine kinase
- AK : adenylate kinase
- LDH : lactate deshydrogenase
- CS : citrate synthase
- COX : cytochrome C oxydase



The five specific enzymatic activities are measurable in samples homogenized with the Precellys and the standard Potter lysis.

### ■ Conclusion

- Preservation of the protein enzymatic activity
- Time saving compared with standard lysis protocol (Potter lysis) because of its high sample capacity and efficiency