



Enzymatic Dosage from Rat Heart

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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.

RESULTS

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

- CK: Creatine Kinase
- AK: Adenylate Kinase
- LDH: Lactate Deshydrogenase
- CS: Citrate Synthase
- COX: Cytochrome C Oxydase

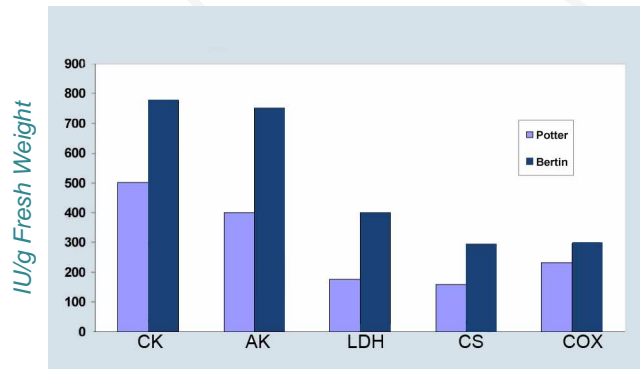
The five specific enzymatic activities are measurable with samples homogenized with the Precellys and the standard Potter lysis

MATERIAL

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

PROTOCOL

- Precellys®24 parameters:
6500rpm, 2x8 sec., 8 sec. break



Enzymatic Activity Comparison



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CONCLUSION

The Precellys®24 preserves the protein enzymatic activity. The Precellys®24 also saved time compared with standard lysis protocol (Potter lysis) because of its high sample capacity and efficiency