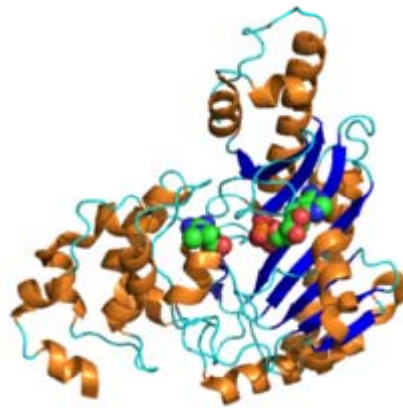




Creatine Kinase Assay



Spin Blood

- Firstly spin the blood samples for approximately 2 minutes at 6000rpm. Ensure the samples are defrosted if they have been frozen.
- Make sure you have an even number of samples in the centrifuge. This helps to balance it. E.G. if you only have two samples ensure that they are opposite each other



Randox CK-NAC

- Stored in the fridge in BC033 is the assay kit (right)
- This contains R1a which is a liquid reagent and R1b which is a powder



Spectrophotometer I

- Turn on the Jenway 6310 Spectrophotometer and the Jenway heated cell block controller (far right)
- Switches are located on the back of the main unit and heated cell block
- Wait until the heated cell block reaches a reading of 37 degrees before use. The samples are heated before analysis takes place.



R1a and R1b mixing

- Use the 5ml pipette to add 10ml of R1a to the R1b powder. Just add this to the bottle and shake gently to mix (put the lid on!)
- Mix until the solution goes clear
- There should be enough for approx 10 samples



Preparing the sample

- Using a 1ml pipette, add 1ml of the R1a/R1b mix to a cuvette (right)
- Then using a 40ul (microlitre) pipette, carefully pipette the blood plasma. Make sure that there are NO red blood cells in the pipette tip. This can affect the measurements of the sample.
- Using the vibration mixer, hold the cuvette with the sample into the rubber bowl and mix so that the bubbles rise to the top before sampling



Cuvette



Vibration Mixer

40ul
pipette



Spectrophotometer II/Results

- Scroll down to Kinetics mode by pressing enter, the screen should show 340nm and ID1 which is the setting for CK measurements
- Press CAL on the spectrophotometer and lift the lid and place the sample into the hold
- Press enter to begin analysis
- There is a 2 minute lag time whilst the sample is warmed
- A graph will appear on screen and once this has stopped, press enter to get the results. You are looking at the difference between the low and high figures
- Remove the sample and dispose of in the sink with running water and the cuvette in the clinical waste

