

FALONE NORCAS

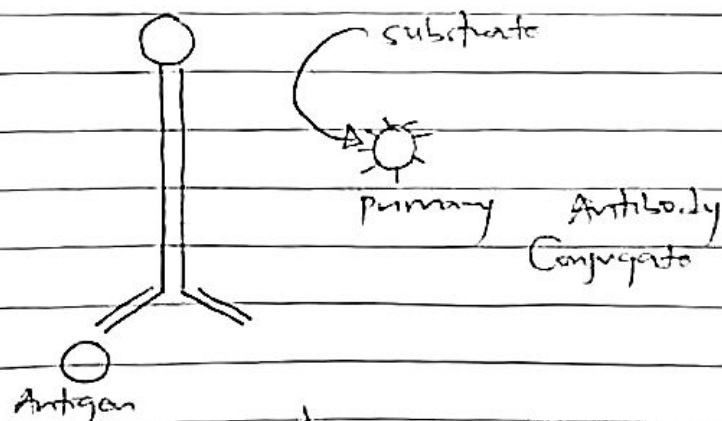
16/02/2005

BCH 412

ASSIGNMENT

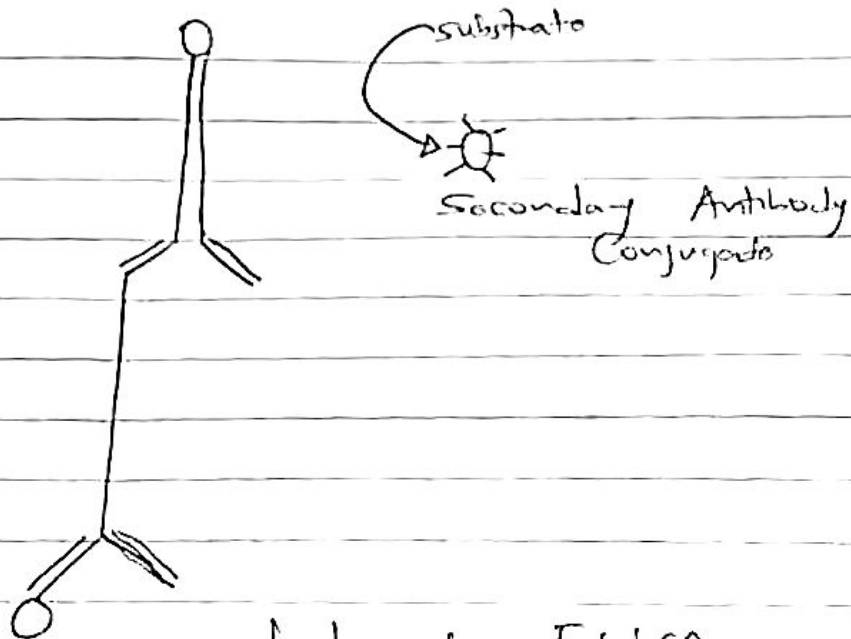
1. The principle of immunochemical technique is Antigen - Antibody reaction.
 2. i. A known quantity of an antigen is made radioactive.
ii. Then, the antigen is mixed with a known amount of antibody, they chemically bond to one another.
iii. A sample containing unknown antigen is added - This causes the Unlabelled antigen for antibody binding site.
iv. The Unlabelled antigen concentration is more so that it free the labelled antigen. The labelled antigen will float in supernatant and it is measured using gamma counter.
- 25) Disadvantages of radioimmunoassay
- i. Radioactive iodine used is not a cheap reagent.
 - ii. Possible health hazards due to handling of isotopes.
 - iii. Lengthy counting time.

3i



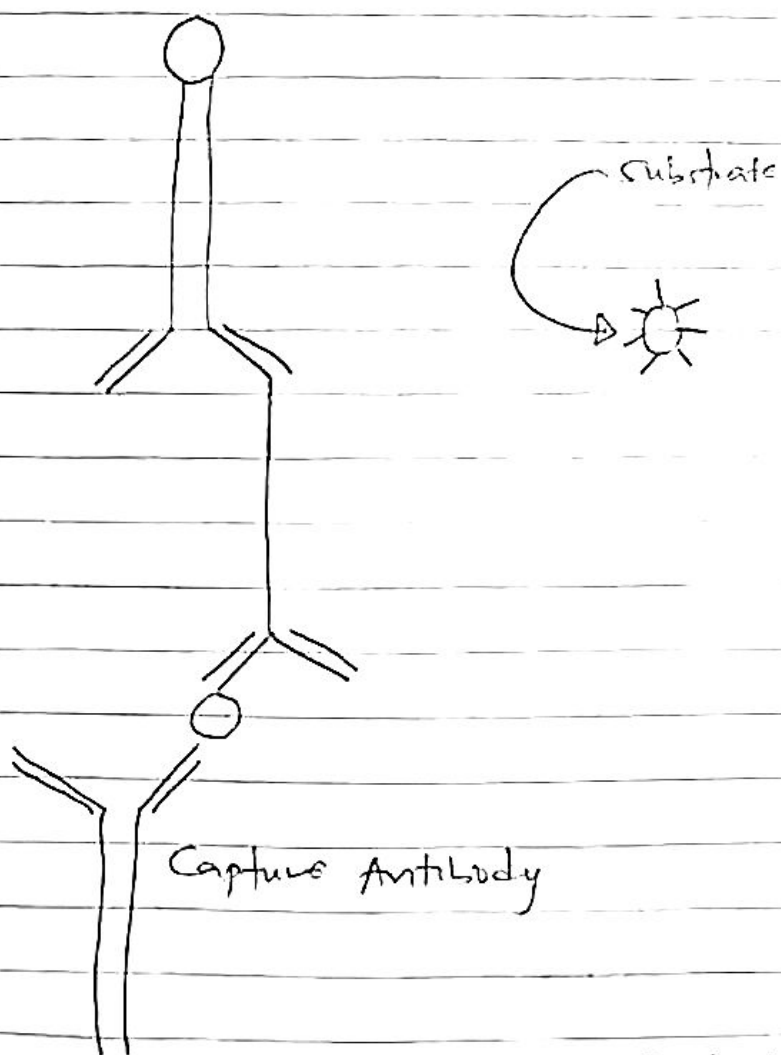
Direct ELISA

ii

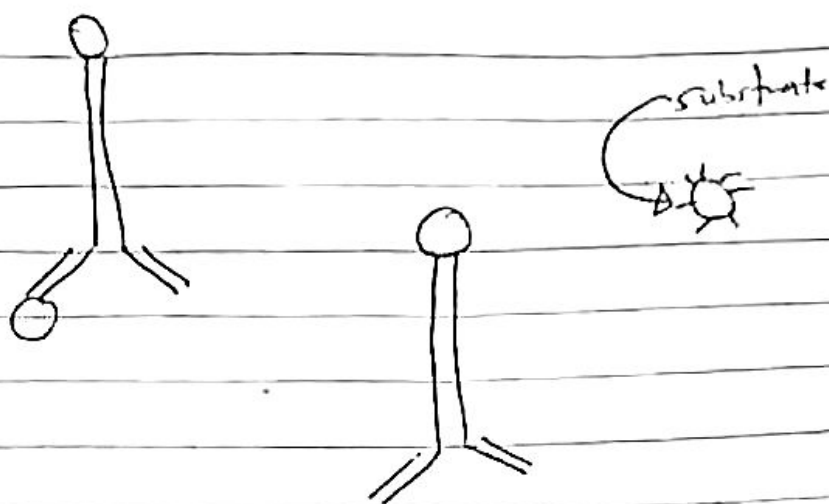


Indirect ELISA

iii



Sandwich ELISA



Competitive ELISA

Two differences between Radioimmunoassay and ELISA		
Parameters	Radioimmunoassay	ELISA
Mechanism	Based on the measurement of radioactivity associated with immune complexes	Based on measurement of enzymatic reaction associated with immune complexes
Sensitivity	Nanomolar to Picomolar	Millimolar
Time Duration	More time	Less time
Cost	High Cost	Lower Cost
Ease of Handling	Tedious	Easy.