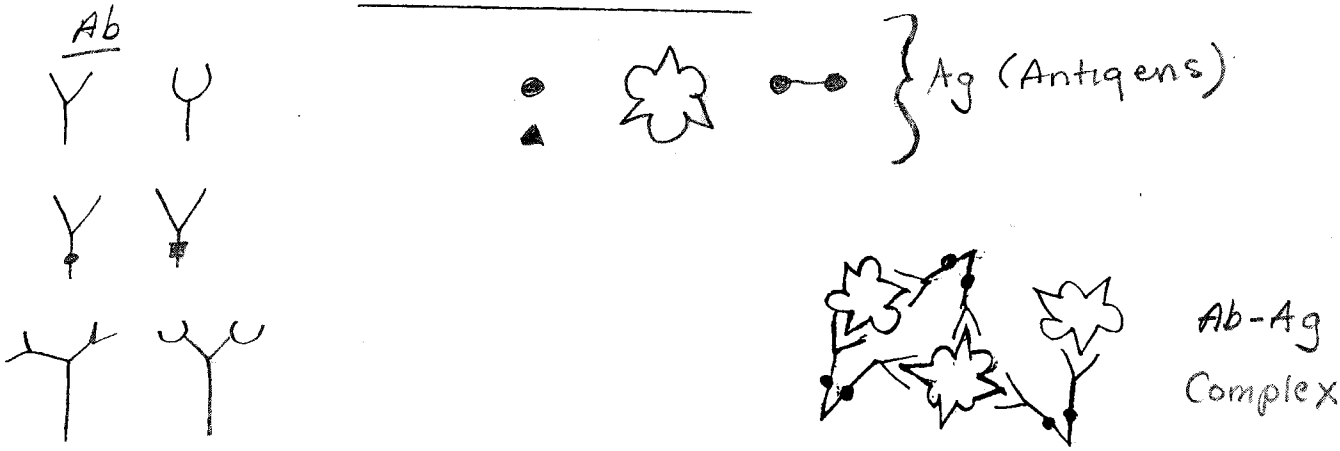
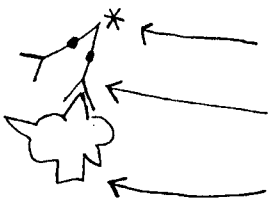
2C

## Detection with Antibodies




Direct Immunofluorescence



Tag (fluorescent, radioactive, etc.)

Antibody = Ab #1 = rabbit anti-mouse = (1)

Antigen = Ag = mouse cell or protein

Ab #1 has tag

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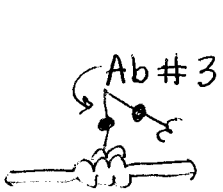
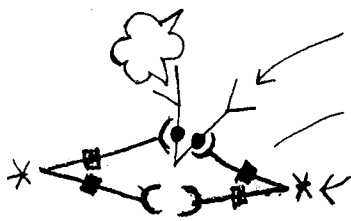
Indirect Immunofluorescence



Ab #1

Antibody to Ab #1 = goat anti-rabbit = Ab #2 (2)

Tag

Ab #2 has tag

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(1) Ag from mouse injected into rabbit → Ab (gamma G) isolated from rabbit = Ab #1 (or Ab #3)
Ab #1 = Ab made in rabbit directed against mouse protein (Ag).
Ab #1 is directed against (& specific for) a particular region of a particular protein.
Ab #1 will react with only one antigen (or a very small number of different antigens)
Ab#1 can be used to locate position of the particular Ag used here

(2) Ab # 1 injected into goat → Ab (gamma G) isolated from goat = Ab #2
Ab #2 = goat antirabbit
= Ab made in goat directed against rabbit Ab (Ab #1)
= Ab to Ab #1 (Here Ab #1 is used as an antigen to get goat to make antibody)
Because of the way this is done, Ab #2 is primarily directed against the region of rabbit antibody (rabbit gamma G) that is found in all rabbit antibodies. Ab #2 will react with virtually any rabbit antibody (of gamma G type). So Ab #2 can be used to detect location of Ab #1 +/or Ab #3