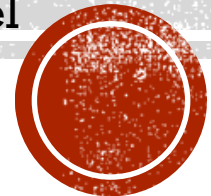


# **AGAR GEL IMMUNODIFFUSION (AGID) TEST**

## **AGAR GEL PRECIPITIN (AGP)**

The passive diffusion of soluble antigens and/or antibodies toward each other leading to their precipitation in a gel matrix

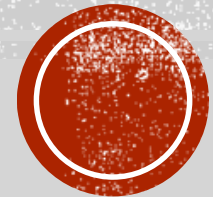


- **DEFINITIONS:**

- **Presipitinogen:** The antigen used in the agar gel test
- **Presipitin:** Antibody coupled with Ag
- **Presipitate:** Line occurring in positive reactions (antigen and antibody junction)



- **Group-specific test (detects antibodies to all subtypes of flu-A, determine antigenic relationships) • Easy, requires few reagents/equip**



- **USAGE AREAS**

- Antibody detection and detection of viruses
- Virus identification



# • **WHAT YOU NEED FOR TESTING**

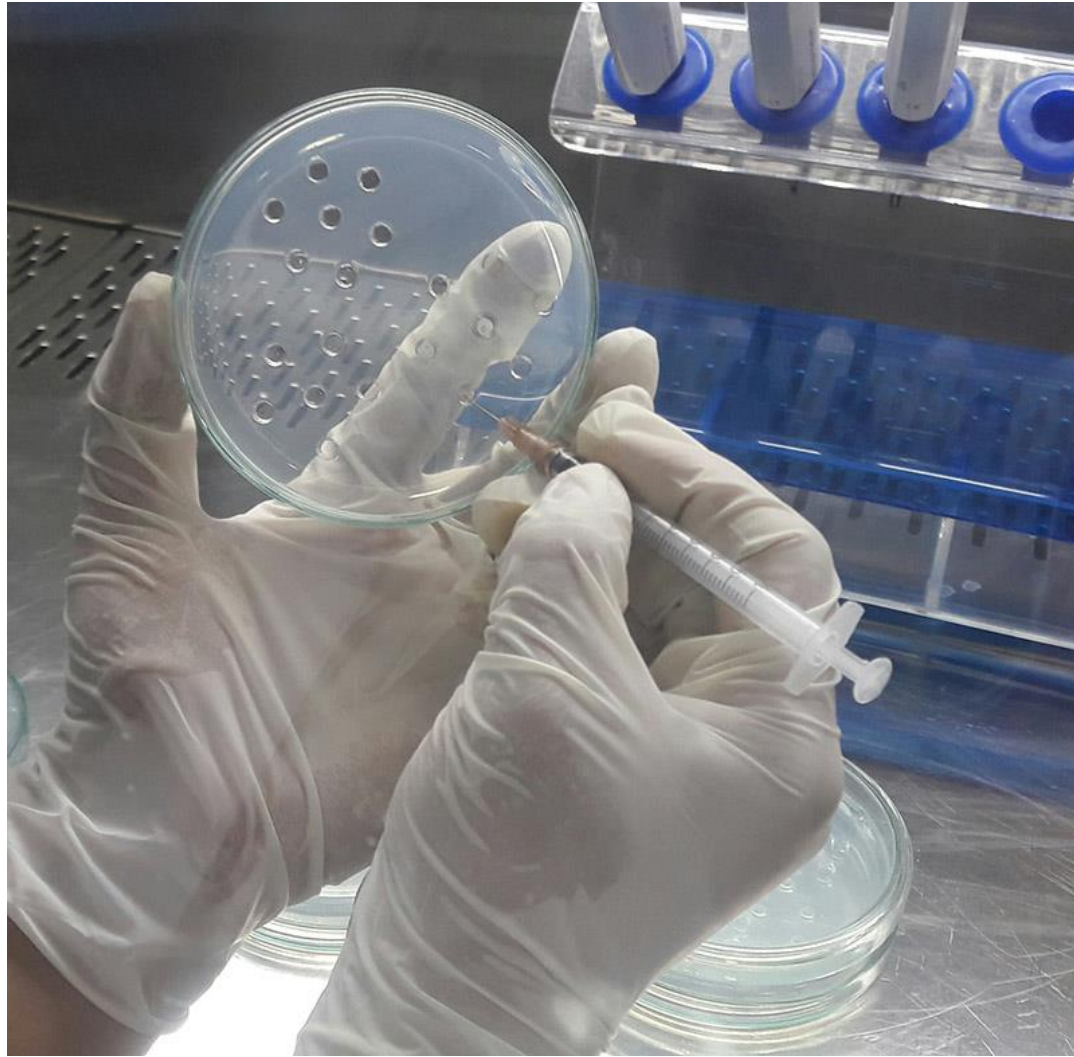
- Agar
- Serum (known or suspected according to the purpose)
- Concentrated virus (According to the purpose known or suspicious)



## • **TEST**

- Once the agar is autoclaved, it is transferred to petri dishes and is expected to freeze.
- Using a special piercer, 6 eyes are opened at one center and at an equal distance from the center.
- According to the purpose; Known material to the center and suspicious materials are added to the peripheral wells and the results are evaluated against light source following incubation for 48-72 hours.

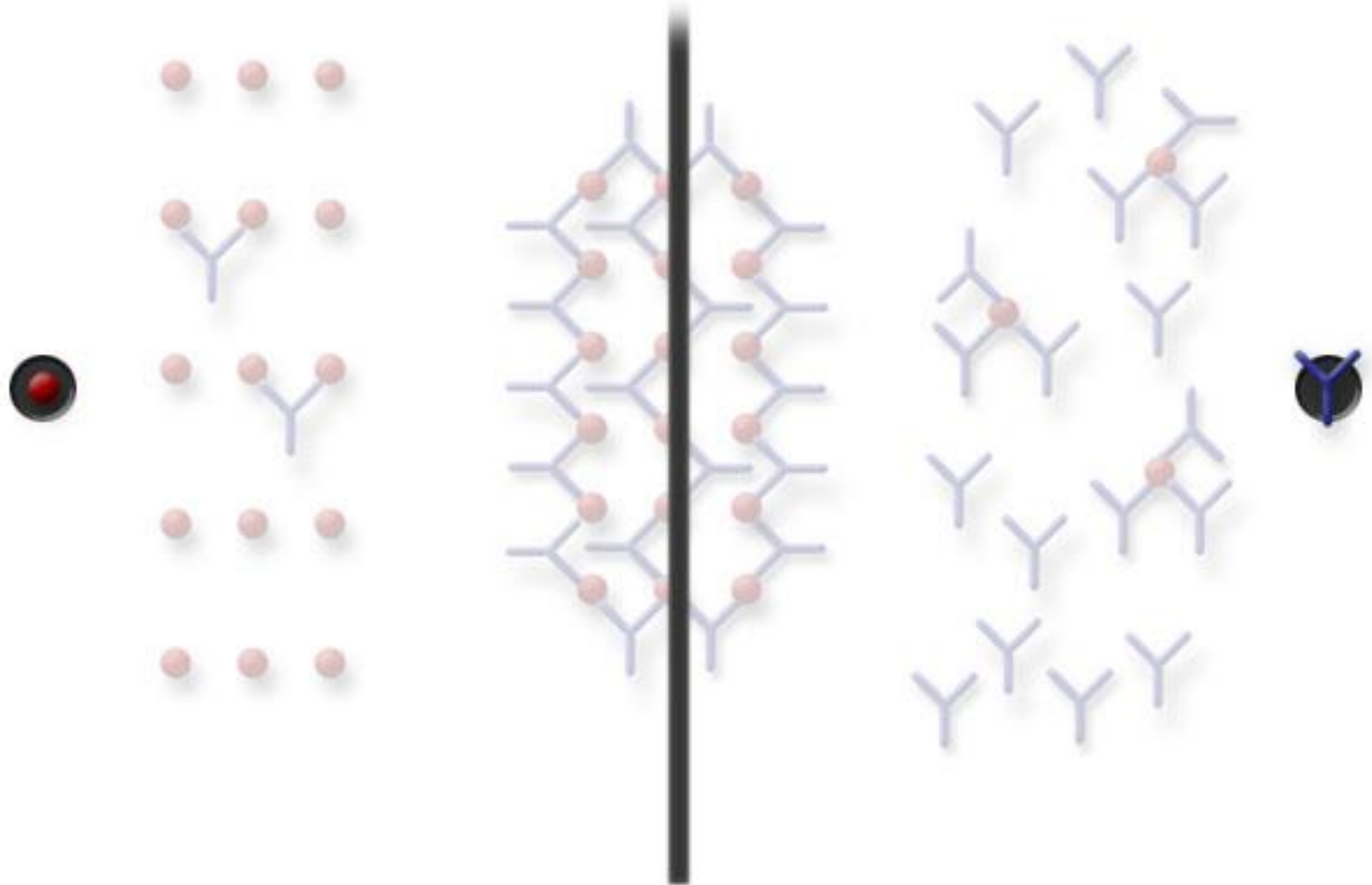




<http://www.uol.edu.pk/research-section/vaccines-and-antisera-production>



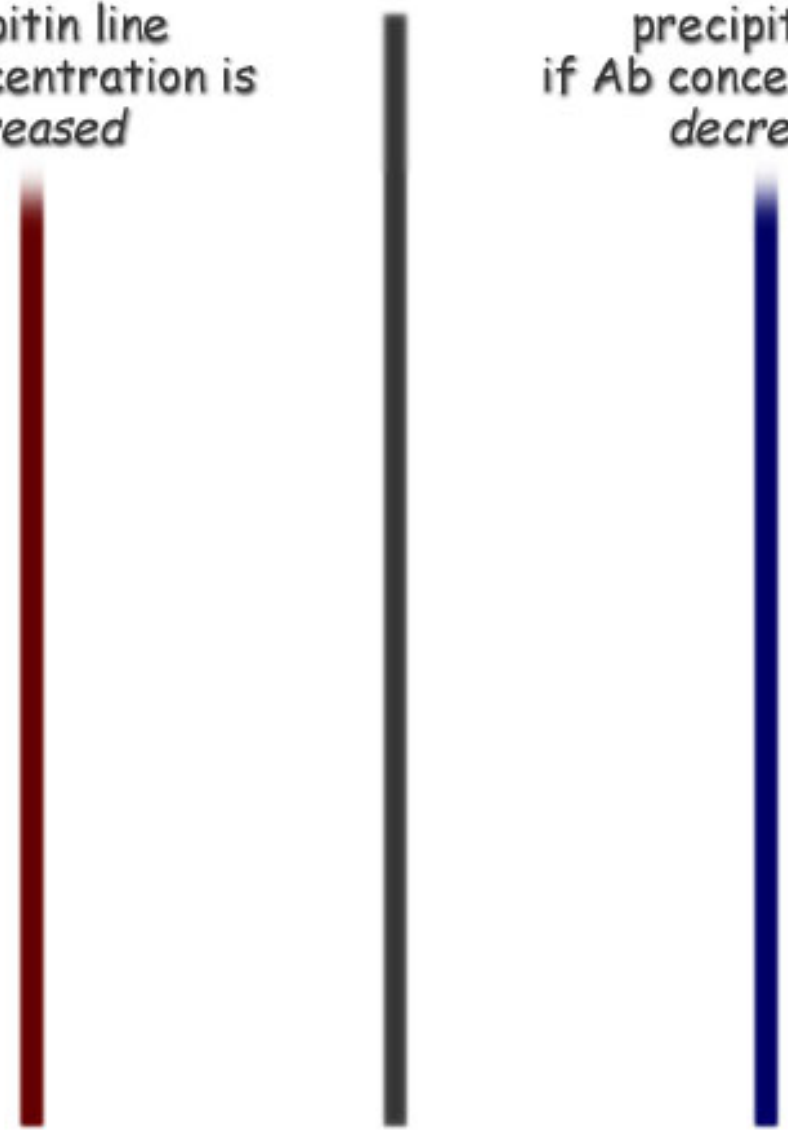
precipitation of large Ag:Ab aggregates  
forms the "precipitin" line





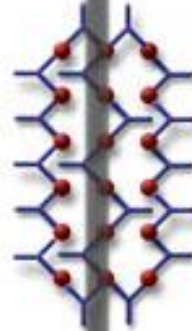
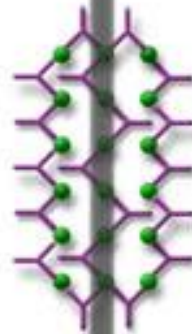
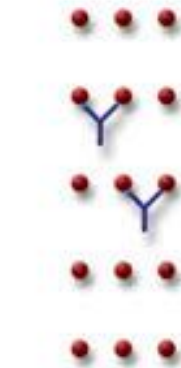
precipitin line  
if Ab concentration is  
*increased*

precipitin line  
if Ab concentration is  
*decreased*



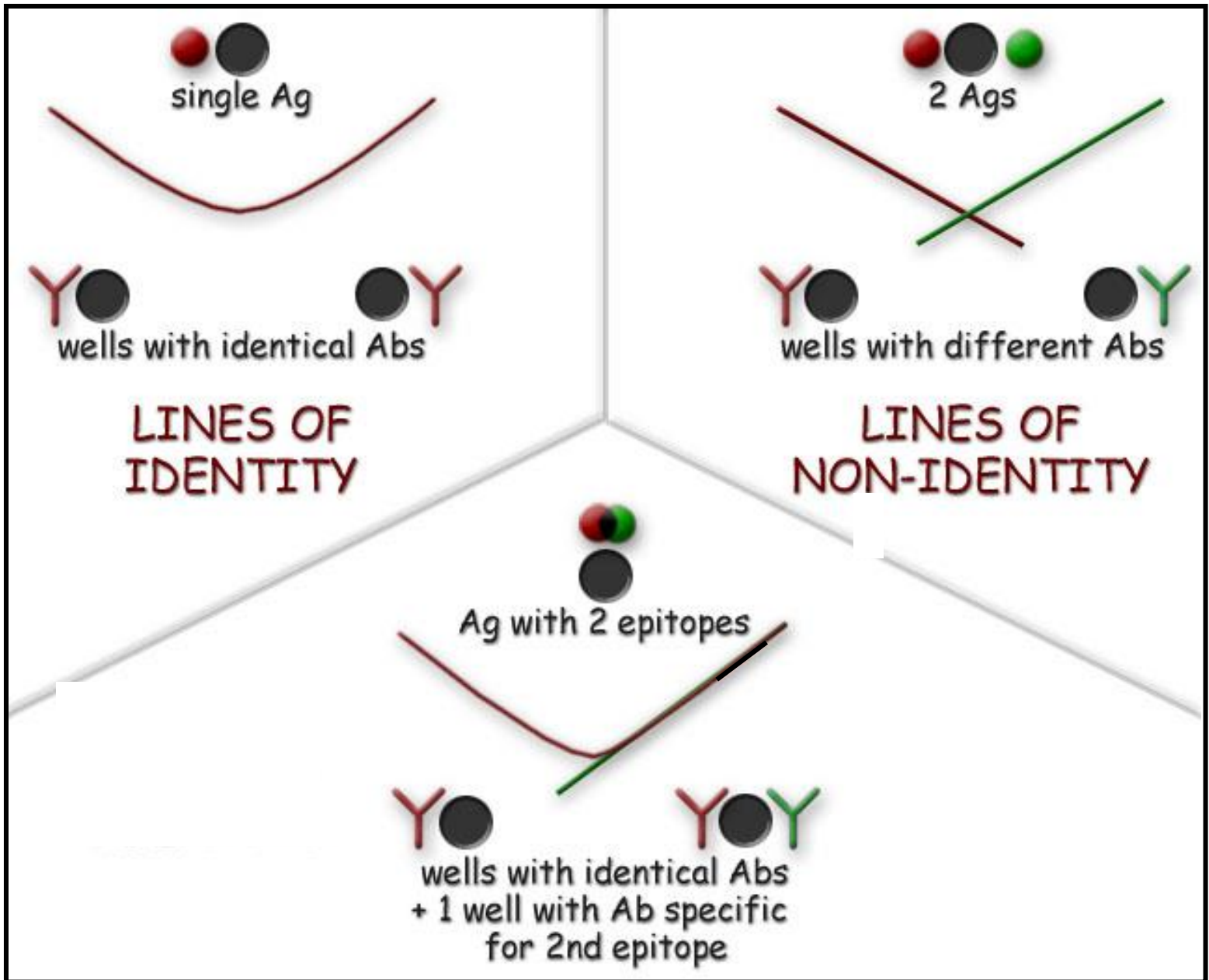
a precipitin line forms  
for each Ag:Ab system

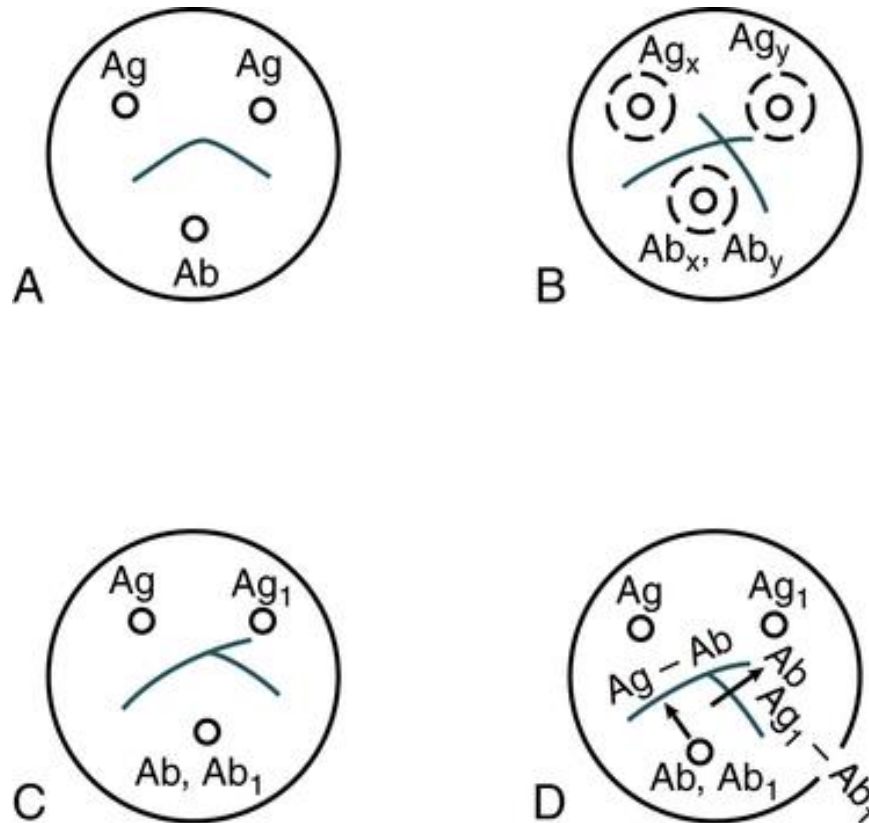
  
2 Ags  
added  
to well



  
2 Abs  
added  
to well



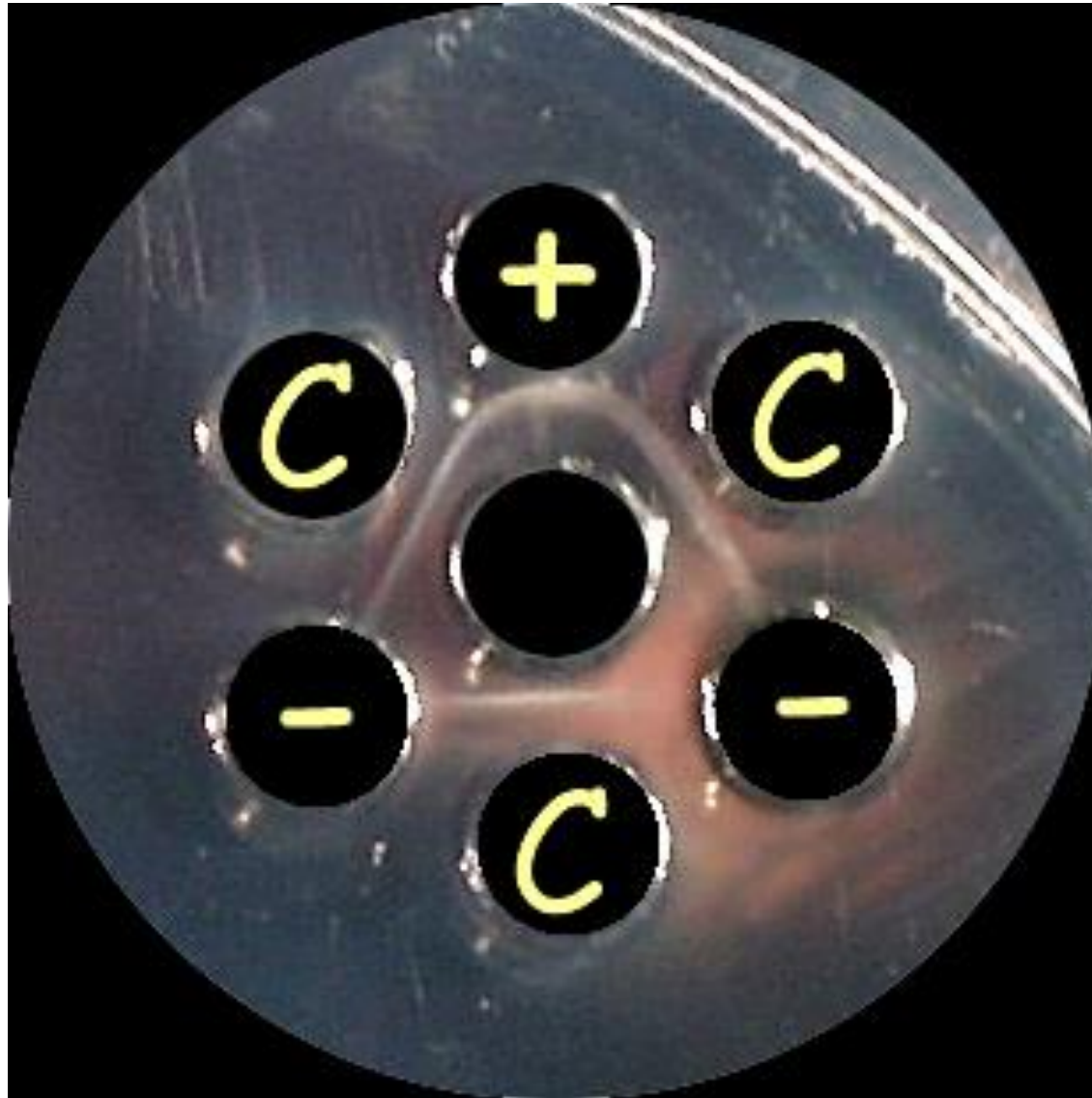


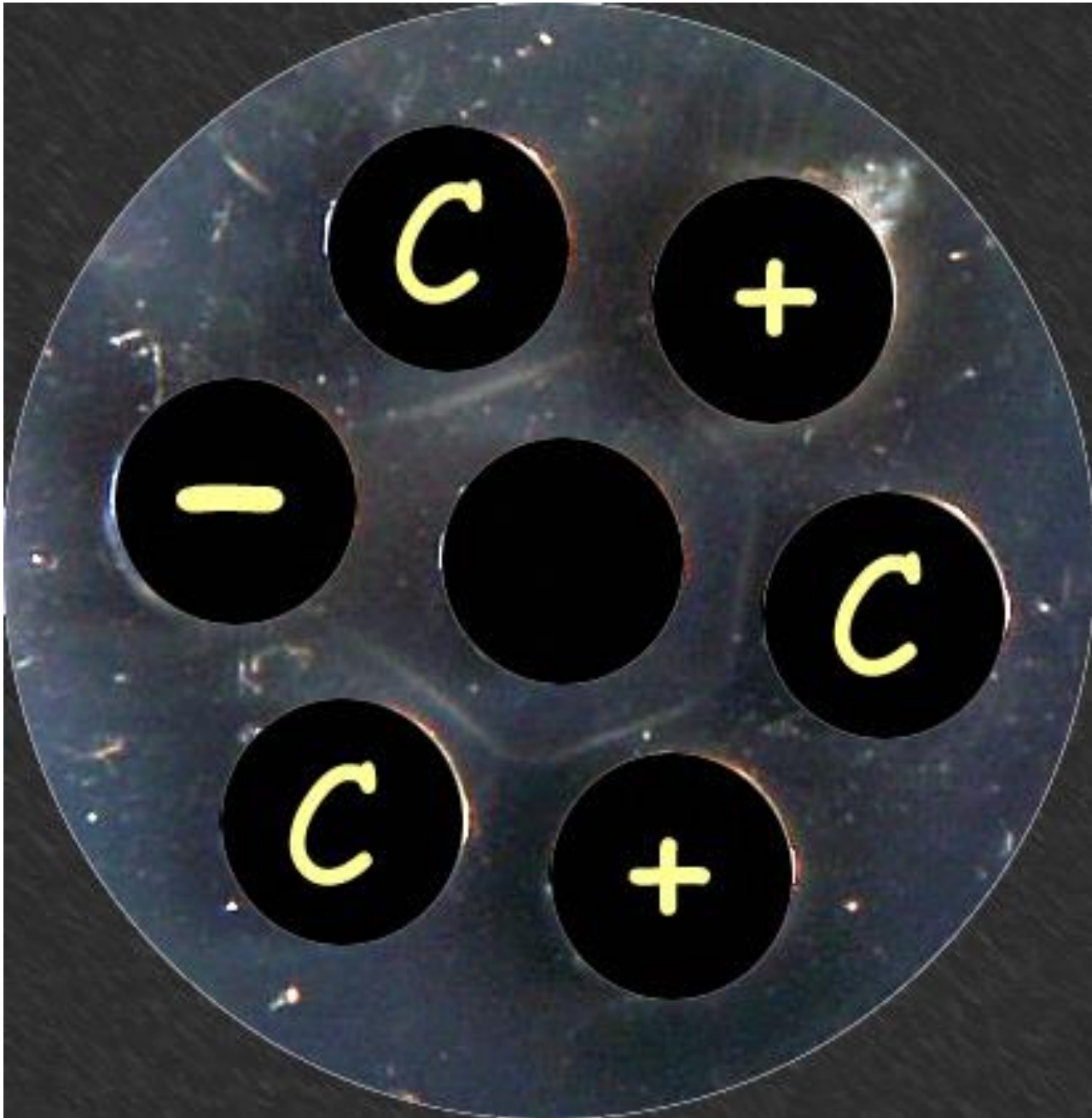


Double immunodiffusion in two dimensions by the Ouchterlony technique. **A**, Reaction of identity. **B**, Reaction of nonidentity. **C**, Reaction of partial identity. **D**, Scheme for spur formation. *Ab*, Antibody; *Ag*, antigen. (From Burtis CA, Ashwood ER, Bruns DB: Tietz fundamentals of clinical chemistry, ed 6, St. Louis, 2008, Saunders.)

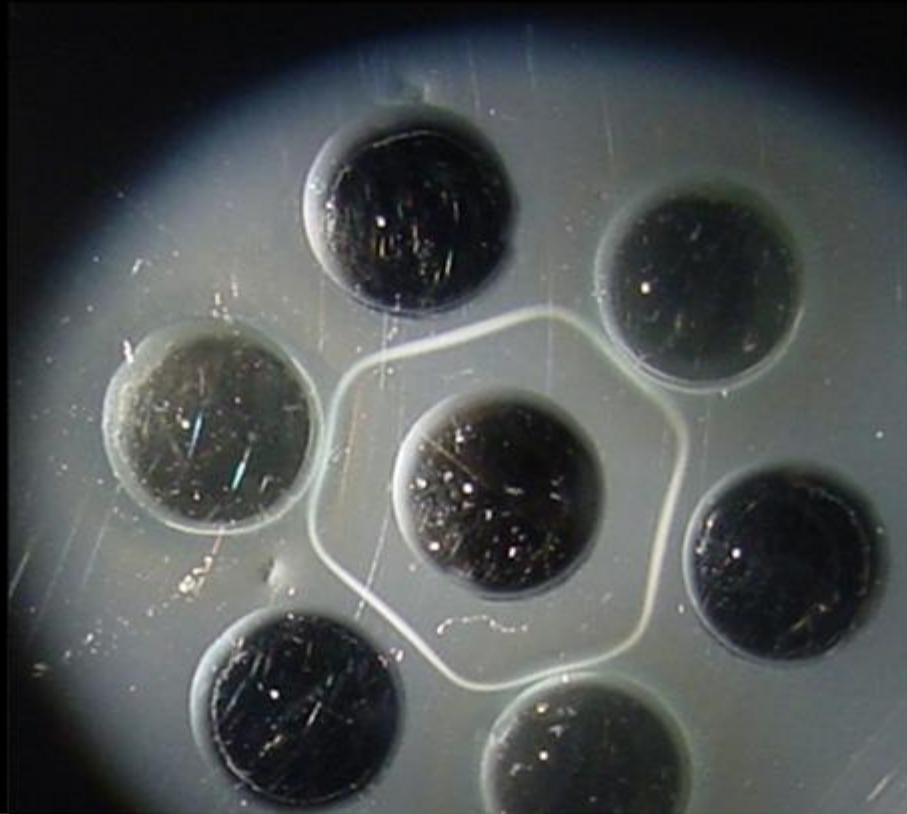


# Caprine Arthritis-Encephalitis Virus AGID





# Majority of AGID Test Reactors : Line of identity with POS control



<http://www.uky.edu/Ag/VetScience/EIA/diagnosis.html>

