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90
570






















Experiment (8) : Determination of Rh⁺ and Rh⁻ blood groups.

Principle : Because of presence of D-antigen on R.B.C. of man, blood group may be Rh⁺. In the absence of D-antigen blood group in Rh⁻. In persons R.B.C. having D-antigen is agglutinated by antibodies. Such blood is Rh⁺. In absence of D-antigen in R.B.C., blood in Rh⁻. ~~Rh⁻ or Rh⁺ blood groups could be determined by 3 methods.~~

[I] Slide examination method

Procedure : Take a clean glass cavity slide. Add a drop of Anti-D serum in cavity and then add a drop of blood leave for 2 minutes and then observe **observation and result**. If agglutination occurs it indicates that D-antigen in serum has resulted clumping and blood in Rh⁺. If no clumping blood in Rh⁻

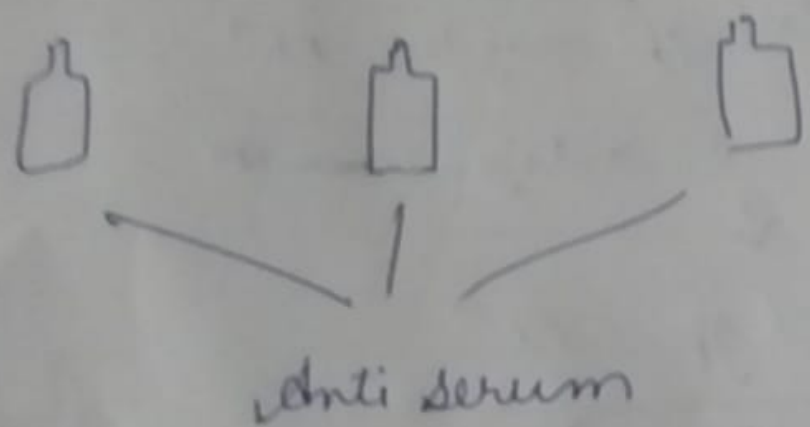
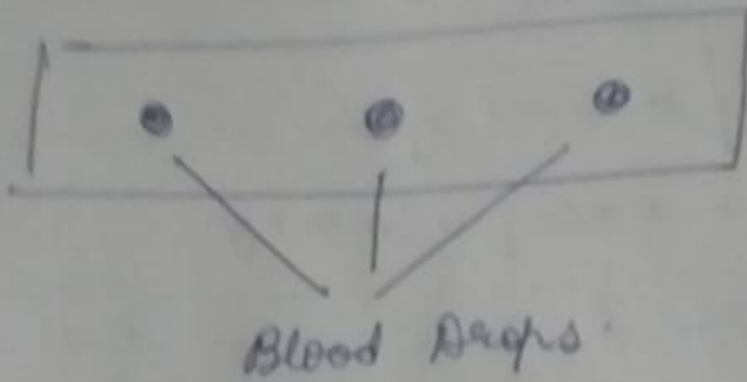
Result on the basis of clumping
& non clumping

Antiserum A	Antiserum B	Antiserum D	Rh Factor
clumped ↑	Non-clumped ↑		A ⁺
			A ⁻
			B ⁺
			B ⁻
			AB ⁺
			AB ⁻
			O ⁺
			O ⁻

220
60
90

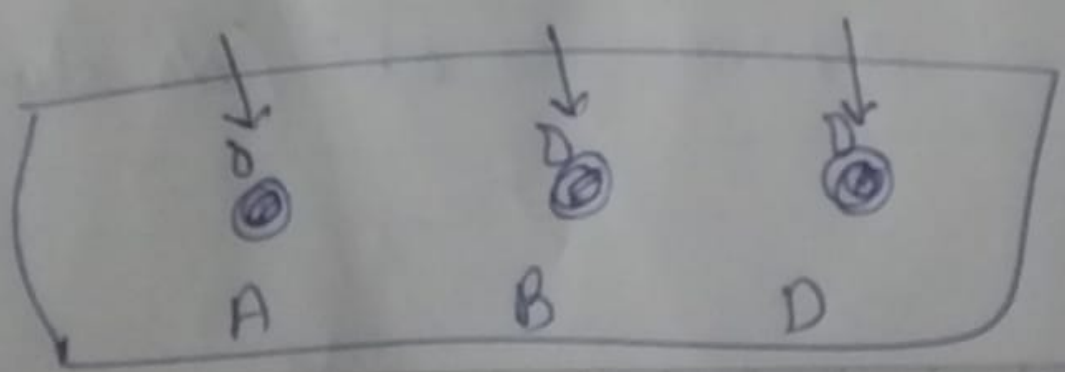
370

Observation : If R.B.C. shows clumping or agglutination then blood in Rh⁺ otherwise Rh⁻.



(A) (B) (D)

a drop of
Add anti serum on slide.



(Blood + anti serum)

Rh^+ & Rh^- antigen in R.B.C are called Rhesus factor.

↓ derived from

Rhesus macaque monkeys.

⇒ presence of D-antigen in R.B.C

↓
Blood gp. may be Rh^+

⇒ Absence of D antigen ~~in~~

↓
Blood gp. : Rh^-

(In person R.B.C. having D antigen is agglutinated by antibodies.)

↓
Blood gp. = Rh^+

→ Rh^- = opposite to Rh^+ (No clumping)



Rh FACTOR : Landsteiner and Wiener discovered a different antigen called Rh antigen/ agglutininogen in blood.

Rh stands for rhesus monkey from whom it was first discovered. Persons having Rh antigen in their blood are called Rh⁺ and those who do not have Rh antigen are called Rh⁻. All above blood group are hereditary.

PROCEDURE :

- # Sterilize the tip of your middle finger with sterilized cotton wool dipped in 90% alcohol.
- * Let the tip of the finger become dry.
- * Prick the finger with a sterilized needle.
- # Now put 3 drops/ dabs on a slide with blood.
- # Put Antiserum - A in 1st drop, Antiserum - B in 2nd drop and Antiserum - D on 3rd drop, quickly before the blood dries.
- # Observe clumping if any.