

# MacCONKEY AGAR

## REGULAR FORMULATION AND THE MODIFIED FORMULATION USED IN MICROBIOLOGY 102 FOR THE ISOLATION OF ENTERIC BACTERIA

	MacCONKEY AGAR usual formulation	MacCONKEY AGAR special Bact. 102 modification
selective agent(s)	bile salts, crystal violet, neutral red	bile salts, crystal violet, neutral red
source of amino acids which may be deaminated (alkaline rx.)	peptone, proteose peptone	peptone, proteose peptone
amino acid added for detection of decarboxylation (alkaline rx.)	none	none
fermentable sugar(s) (acid rx.)	lactose (1%)	lactose (1%)
pH indicator	neutral red: net acid = red, net alkaline = whitish/light	neutral red: net acid = red, net alkaline = whitish/light
source from which H <sub>2</sub> S may be produced	none	Na thiosulfate
indicator of H <sub>2</sub> S production	none	ferric ammonium citrate

14A Modified MacConkey Agar - possible colony types:

amino acids  $\xrightarrow{\text{aerobic deamination}}$  alkaline reaction } All enteric species and Pseudomonas can do this.

lactose (sugar)  $\xrightarrow{\text{fermentation}}$  ACIDIC REACTION } Some enteric species can do one or both KIA

sodium thiosulfate  $\xrightarrow{\text{reduction}}$  H<sub>2</sub>S  $\xrightarrow{\text{Fe}^{++}}$  FeS (black)

H<sub>2</sub>S + (black center)
lactose + net acidic rxn. (red)
lactose negative stays alkaline (whitish)

① stab ② streak ③ stab