

Name: * Controls check the validity of a test * Block; ___ Date: _____

Testing Log:

Test	Date Performed	Result	Positive Control	Negative Control	Teacher check
Gram Stain	000	gram +/- shape	E. faecalis + cocci chns	E. coli - rods	
Indole - tryptophanase		+	E. coli +	K. pneumo -	
Oxidase - drop test used on gnr		+	Ps. aeruginosa +	E. coli -	
Microdase - filter paper used for gram+		+	M. luteus +	S. epi -	
Catalase H ₂ O ₂ → H ₂ O + O ₂ (g)		+ bubbles - nothing	Staph +	Strep -	
Glucose	} fermentation tubes	A = Acid			
Lactose		A/G = Acid w/ Gas			
Sucrose		NC = No Change			
Pigment	use swab to touch colony to observe pigment				
Additional Tests:					
→ selective media	blood agar, EMB, MAC-L, MAC-S				
→ differential media	PEA, MSA, SIM, triple sugar iron (TSI)				
nitrate	tube media w/ durham tube NO ₃ → NO ₂ → N ₂ (g)				



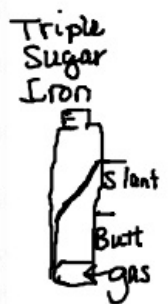
Media	Date Performed	Growth (Colony Morphology, Changes in Media or Inhibition)	Teacher Check
Nutrient Agar			
Blood Agar			

Key: GPC GRPS – gram positive cocci in groups + positive result
 GPC CHNS – gram positive cocci in chains - negative result
 GNR – gram negative rods N/A – not applicable
 GPR – gram positive rods
 (**Remember to perform a control to be sure test is valid)

Name: *Controls are used to validate a test* Block: ___ Date: ___

Testing Log:

Test	Date Performed	Result	Positive Control	Negative Control	Teacher check
Gram Stain		grams + or - morphology	staph / strep (+)	E. coli (-)	
Indole - tryptophanase SIM		KovAC + DMACA	E. coli (+)	K. pneumo (-)	
Oxidase used on gram -		+	Ps. aeruginosa (+)	E. coli (-)	
Microdase used on gram +		+	M. luteus (+)	Staph epi (-)	
Catalase $H_2O_2 \rightarrow H_2O + O_2(g)$		+ bubbles - No bubbles	Staph (+)	Strep (-)	
Glucose	}	A = Acid	use lab to determine controls (or chart)		
Lactose		AG = Acid/Gas			
Sucrose		NC = No change V = invalid			
Pigment	may show in broth	or use swab (lactose) (sorbitol)		* from non-selective media (N.A.)	
Additional Tests: Selective/Differential Media	MAC, MACS, MSA, PEA, SIM, EMB, BA, TSI				
Nitrate / Durham tube	$NO_3 \rightarrow NO_2 \rightarrow N_2(g)$				
V-P (Voges-Proskauer) ?	may be available				
Camp Test		test unk. \rightarrow (+)	arc of phen. \rightarrow (-)	(+) unk is Grp B Strep.	
Media	Date Performed	Growth (Colony Morphology, Changes in Media or Inhibition)	Teacher Check		
Nutrient Agar					
Blood Agar					



Key: GPC GRPS - gram positive cocci in groups
 GPC CHNS - gram positive cocci in chains
 GNR - gram negative rods
 GPR - gram positive rods
 + positive result
 - negative result
 N/A - not applicable
 (**Remember to perform a control to be sure test is valid)

- ① Broth w/ unk.
- ② Gram Stain w/ controls
- ③ Plate to initial media (up to 3 plates)
- ④ Create flow chart for matching gram stain
- ⑤ Continue working until you have identified your unknown.

