



Job Aid

<https://apiweb.biomerieux.com/login>

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API20E Reading Guide

Inoculation of strip:	Before reading:	Reduction of nitrates
CIT,VP,GEL: fill tube & cupule	TDA: add 1 drop of Ferric chloride/TDA reagent	NO₂: add 1 drop NIT1 &
Other tests: fill tube only	IND: add 1 drop Kovacs / James reagent	NIT2 to GLU; wait 2-3 mn
ADH,LDC,ODC,H₂S,URE: add drop	VP test: add 1 drop of VP1 & VP2 reagents; wait	N₂ gas: add 2-3mg Zn;
of oil for anaerobic conditions	10 mins; slight pink = +/- consider both options	wait 5 min

Tests	Substrates	Enzymatic reactions	Results	
			Positive	Negative
ONPG	Ortho-nitro-phenyl-galactoside	B-galactosidase	colorless	Yellow
ADH	Arginine	Arginine Dihydrolase	Yellow	Red/Orange
LDC	Lysine	Lysine Decarboxylase	Yellow	Orange
ODC	Ornithine	Ornithine Decarboxylase	Yellow	Red/Orange
CIT	Sodium citrate	Utilization of Citrate	Pale green / Greyish	Blue-green/ Green
H ₂ S	Hydrogen sulfide	Production of H ₂ S	Colorless/ Greyish	Black deposit/ End border
URE	Urea	Urease	Yellow	Red/ Orange
TDA	Tryptophan	Tryptophan deaminase	Yellow	Dark brown
IND	Indole	Production of indole	Colorless Pale green/ Yellow	Pink Red ring
VP	Glucose	Production of acetoin	VP1 + VP2 (10mn) Colorless	Pink/ Red
GEL	Gelatin	Gelatinase	No diffusion	Diffusion with black pigment
GLU	Glucose	Fermentation/Oxidation	Blue/ Blue-green	Yellow
MAN	Mannitol	Fermentation/Oxidation	Blue/ Blue-green	Yellow
INO	Inositol	Fermentation/Oxidation	Blue/ Blue-green	Yellow
SOR	Sorbitol	Fermentation/Oxidation	Blue/ Blue-green	Yellow
RHA	Rhamnose	Fermentation/Oxidation	Blue/ Blue-green	Yellow
SAC	Sucrose	Fermentation/Oxidation	Blue/ Blue-green	Yellow
MEL	Melibiose	Fermentation/Oxidation	Blue/ Blue-green	Yellow
AMY	Amygdalin	Fermentation/Oxidation	Blue/ Blue-green	Yellow
ARA	Arabinose	Fermentation/Oxidation	Blue/ Blue-green	Yellow
OX		Cytochrome oxidase	Ox (1-2 mn) Colorless	Purple
NO ₃ ⁻	Glu tube	Production of NO ₂ ⁻	NIT1 + NIT2 (2-3 mn)	
NO ₂		Production of NO ₃	Yellow + ZN Red	Red Yellow

Demonstration of positive results across all tests:



Reference: API reference literature

Amendment: nil