








## MICROBIOLOGY 102 – DECARBOXYLATION TEST MEDIA

DECARBOXY- LATION TEST MEDIA  = alkaline  = acidic	DCB	Lysine Decar- boxylation Broth		MIO (ornithine)	
					
aerobic amino acid deamination (alk)	[inhibited]	+	+	+	+
Glucose fermentation (acidic) and : anaerobic growth	+	+	+	+	+
Anaerobic amino acid decarboxylation (alk)	[nothing to decar- boxylate]	-	+	-	+

**Glucose** is included in all of these media, and those media with lysine or ornithine have their amino acid present in a relatively large amount. All enterics will ferment glucose, and fermentation allows for anaerobic growth. Decarboxylation of amino acids is an anaerobic process, so we look for this reaction in the lower part of the tube. The alkaline reaction resulting from decarboxylation will overneutralize the acidic reaction from glucose fermentation, resulting in a tan, blue or violet color of the pH indicator.

DCB is Decarboxylation Control Broth, and it is identical to Lysine Decarboxylation Broth except that it contains no lysine. So, it is very much like Glucose Fermentation Broth. No fermentation would mean we do not have an enteric.