

SGD Microbiology  
Klebsiella pneumoniae Pg # 156

An alcoholic presents with a fever, pleuritic chest pain, dyspnea, and cyanosis. His cough produces bloody "currant-jelly" sputum. CXR shows inflammation involving the right upper lobe with possible cavities. Sputum culture revealed Lactose fermenting mucoid colonies, which was non-motile.



ASM Microbe Library.org © Buxton

1. Name the disease and the causative agent.
2. Classify Gram negative bacteria on the base of lactose fermentation.
3. Name one other organism causing the same disease.
4. Is this bacterium capsulated?
5. Name two biochemical tests which differentiate this bacterium from E.coli.

(3)

Mam Sadia. (3<sup>rd</sup> Year)

KEY:

1. Pneumonia and *Klebsiella pneumoniae*
2. Lactose fermenters: E.coli, Klebsiella, Enterobacter  
Non-lactose fermenters: Proteus, Pseudomonas, Salmonella, Shigella
3. Streptococcus pneumoniae
4. Yes

5. E.coli — Indole +ve, MR +ve, Motility test +ve

Klebsiella — Urease +ve, Citrate +ve, VP +ve