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Revised: January 14, 2020

Validated strain list for fluorescent WGA gram staining

Gram-positive strains with validated staining:

- Bacillus megaterium[2]
- Bacillus sp.[2]
- Bacillus subtilis[5]
- Corynebacterium sp.[2]
- Lactobacillus acidophilus[2]
- Lactococcus lactis[1,2]
- Listeria monocytogenes[4]
- Micrococcus luteus[1,2]
- Micrococcus spp.[2]
- Mycobacterium smegmatis[2]
- Sporosarcina ureae[2]
- Staphylococcus aureus[1,2,3]
- Staphylococcus epidermidis[2]
- Staphylococcus saprophyticus[2]
- Streptococcus agalactiae[1]
- Streptococcus dysgalactiae[1]
- Streptococcus faecalis[2]
- Streptococcus mitis[2]
- Streptococcus pyogenes[2]
- Streptococcus uberis[1]

Gram+ strains with poor staining:

- Bacillus cereus[1]

Gram-negative strains verified as non-staining:

- Acinetobacter calcoaceticus[2]
- Alcaligenes faecalis[2]
- Burkholderia cepacia[3]
- Cytophaga sp.[2]
- Enterobacter aerogenes[2]
- Enterobacter cloacae[1,2]
- Escherichia coli[1,2]
- Klebsiella oxytoca[1]
- Klebsiella pneumonia[2]
- Morganella morganii[2]
- Proteus mirabilis[2]
- Proteus vulgaris[2]
- Pseudomonas aeruginosa[3]
- Rhodospirillum rubrum[2]
- Salmonella typhimurium[2]
- Serratia marcescens[2]
- Shigella sonnei[2]

Gram- strains with inconsistent staining:

- Pseudomonas fluorescens[1]
- Pseudomonas putida[1]

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References:

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2. Sizemore RK, et al. (1990) Alternate gram staining technique using a fluorescent lectin. Applied and Environmental Microbiology. July, 56 (7) 2245-2247.

3. Rüger M, et al. (2014) Species-specific viability analysis of Pseudomonas aeruginosa, Burkholderia cepacia and Staphylococcus aureus in mixed culture by flow cytometry. BMC Microbiol. Mar 7;14:56. doi: 10.1186/1471-2180-14-56.

4. Eugster MR and Loessner MJ. (2011) Rapid analysis of Listeria monocytogenes cell wall teichoic acid carbohydrates by ESI-MS/MS. PLoS ONE. 6(6): e21500.
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