

Annex C (normative)

Description of *Shigella* colony morphology and colour on selective agars, for both identification and quality control purposes

All Enterobacteriaceae on all these media have round colonies with a smooth surface and entire edge. The size of well-isolated colonies is generally > 2 mm. See Table C.1 for details.

Table C.1 — Description of *Shigella* colony morphology and colour on selective agars

Bacterial species	Selective agars		
	MacConkey agar	XLD agar	Hektoen agar
<i>Shigella sonnei</i> ^a	Colourless to pale pink, translucent, lactose negative.	Translucent with red/cerise centre, same colour as the agar.	Green and moist raised colonies.
<i>Shigella</i> , other species	Colourless, translucent, lactose negative.	Translucent with red/cerise centre, same colour as the agar.	Green and moist.
<i>Escherichia coli</i>	Red with turbid precipitate in agar.	Yellow, opaque, surrounded by yellow precipitate in agar.	Red/salmon with zone of precipitate in agar.
<i>Enterobacter cloacae</i>	Red with turbid precipitate in agar.	Yellow, opaque, surrounded by yellow precipitate in agar.	Red/salmon with zone of precipitation agar.
<i>Klebsiella pneumoniae</i>	Red with turbid precipitate in agar.	Yellow, opaque and mucoid, surrounded by yellow precipitate.	Red/salmon with zone of precipitation agar.
<i>Salmonella</i>	Colourless and translucent, agar yellow around colony.	Red with black centre.	Blue green, with or without black centre.
<i>Proteus mirabilis</i>	Colourless and translucent, agar yellow around colony.	Yellow, black centre, yellow agar with precipitate.	Blue/green, with or without black centre.
<i>Enterococcus faecalis</i>	Red, small round colonies.	None or poor growth, colonies yellowish.	None or poor growth, colonies yellowish.

^a *Shigella sonnei* may ferment lactose after > 40 h incubation, resulting in a weak reaction similar to *Escherichia coli* after this time. *Shigella sonnei* colonies can also show a smooth to rough variation; this is generally accompanied with a loss of a 120 megadalton plasmid and a loss of virulence, and colonies may auto-agglutinate upon suspension in saline and antiserum.

