# Bile Salts | AS-1002

a selective inhibitory agent in culture media.

The bile salts mixture is used as selective inhibitor for gram positive bacteria. This product can induce germination but inhibits the outgrowth of the germinated spores. The presence of bile salts in culture media allows the growth of bile tolerant enteric microorganisms at a concentration of 0.25 – 0.5%.

Bile salts mixture is used in different culture media like MacConkey agar/broth, Violet Red Bile agar, SS agar, Hektoen enteric agar. Using Bile salts as inhibitory agent for gram-positive bacteria leads to increasing the selectivity of the media to *Enterobacteriaceae*.

Lactose fermenting bacteria that forming acid in culture media can be detected by precipitating a very small amount of bile salts around the colony.

Using bile salts in culture media does not affect the color of pH indicator dyes in prepared media and after bacterial culture.

## Typical analysis

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| Powder appearance | Light yellow to yellow, free flowing, fine |
| solution appearance | Clear, make foam if shaken |
| pH (1% in water) | 7 ± 0.5 |

## Composition

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|---|---|
| Bile salts | ≥45 % |
| Moisture | ≤6 % |

## Microbial Quality Control

Cultural response after 18-24 hours incubation at 35-37 °C on MacConkey agar (AS-1282) prepared by bile salts as inhibitory agent.

| Strain | ATCC | Growth | Color of colony |
|---|---|---|---|
| *Escherichia Coli* | 29922 | Luxuriant | Pink to red/ bile precipitate |
| *Enterobacter aerogenes* | 13048 | Luxuriant | Pink to red |
| *Proteus vulgaris* | 13315 | Luxuriant | colorless |
| *Salmonella paratyphi* | 9150 | Luxuriant | colorless |
| *Shigella flexneri* | 12022 | Fair to good | Colorless |
| *Enterococcus faecalis* | 29212 | Fair to good | Pale pink to red |
| *Staphylococcus aureus* | 25923 | inhibited | - |

## Shelf life and storage

Store between 10-30 °C in a ventilated area and protected from light. Close the container tightly after use. Use before expiry date.

Note that this product is for R&D use only. DO NOT USE for drug, household, or any other uses.