

Table (2): Morphological, cultural and physiological characteristics of the actinomycete isolates.

| | A 1 | A2 | A3 | A4 | A5 | A7 | A8 | A10 | A18 |
|---|--|--|--|---|---|--|--|--|--|
| <u>Colony characteristics:*</u> Size (mm) Shape Surface Edge Colour | 7 Circular Cottony Filamentous Whitish | 6.3 Circular Cottony Filamentous whitish | 4.6 Circular Cottony Filamentous whitish | 7.6 Circular Cottony Filamentous Yellowish white | 10.3 Circular Cottony Filamentous whitish | 7.3 Rhizoid Cottony Rhizoid grey | 6.3 Irregular Cottony Lobate whitish | 7.3 Circular Cottony Filamentous Whitish | 6 Circular Cottony Filamentous whitish |
| Pigmentation | - | - | - | - | - | - | - | - | - |
| Spore chain morphology | Spirals | Spirals | Spirals | Spirals | Spirals | Spirals | Spirals | Spirals | Spirals |
| Pellicle formation** | + | + | + | + | + | + | + | + | + |
| <u>Physiological Characteristics***</u> Sugar fermentation | | | | | | | | | |
| Glucose | + | + | + | + | + | + | + | + | + |
| Fructose | + | + | + | + | + | + | + | + | + |
| Sucrose | + | + | + | + | + | + | + | + | + |
| Lactose | + | + | + | + | + | + | + | + | + |
| Mannitol | + | + | + | + | + | + | + | + | + |
| Nitrate reduction | + | + | + | + | + | + | + | + | + |
| Casein hydrolysis | + | + | + | + | + | + | + | + | + |
| Starch hydrolysis | + | + | + | + | + | + | + | + | + |
| Urea hydrolysis | + | + | + | + | + | + | + | + | + |

*Determined after a week of incubation on SCA starch casein agar.

**Examined after 48-72 hr on a liquid SC medium.

*** Acid production from using of sugar as sole carbon source; starch, casein and urea hydrolysis and nitrate reduction.