4. Susceptibility to Antibiotics

The strain is very susceptible to Kanamycin, Neomycin, Chlortetracycline, Erythromycin, but not Streptomycin and Penicillin.

5. Nutritional Characteristics

Organic growth factors are not required and ammonium salts serve as sole nitrogen source. At least 35 organic compounds were utilized, those being most carbohydrates other than D-ribose, starch, 2-ketogluconate, and mucate. In addition, acetate, caproate, caprylate, pelargonate, succinate, azelate, L-malate, DL-β-hydroxybutyrate, pyruvate, ethanol, n-proponal, p-hydroxybenzoate, phenylacetate, L-α-alanine, L-threonine, L-leucine, DL-isoleucine, L-aspartate, L-glutamate, and L-tyrosine were utilized.

6. The G+C Content of the DNA

Evaluation of the DNA resulted in the mole % to be ~68 (by Tm).

TABLE 1

Biochemical and Other Miscellaneous Tests Employed for the Strain S-60

Oxidase:		Hydrolysis of:	
Kovac's	+(weak)	Gelatin	+(weak)
Pathotech	+(weak)	Casein	−
Catalase	+	Starch	−
OF medium:		Tween 80	+
Oxidative	+	Pectin	−
Fermentative	−	Alginate	−
Gas from glucose	−	Cellulose	−
H_2S production: TSI	−	Chitan	−
from cystine	+	DNA	−
Ammonium from peptone	+	Esculin	+
β-Galactosidose (OWPG)	+(API)	Growth on various media:	
Arginine dihydrolase	−	EMB agar	−
Lysine decarboxylase	−	MacConkey agar	−
Ornithine decarboxylase	−	% S agar	−
Tryptophan deaminase	−	Mannitol salt agar	−
Phenylalanine deaminase	−	TCBS agar	−
Urease	+/±	Tinsdale tellurite	
Indole	−	blood agar	+
MP test	−	Pseudosel agar	−
VP test	−	Pigment production:	
Nitrate reduction	−	King A medium	−
Nitrite reduction	−	King B medium	−
Denitrification	−	Dye reaction:	
N_2—fixation:	Congo red	−	
Growth in Burk's medium	+	Nite blue	−
Nitrogenase activity	−		
Malonate (oxidation)	−		
Phosphatase	+		
Haemolysis (sheep blood)	−		
Litmus milk: acid, reduction only			
3-ketolactose production	−		
Survival at 60° C. for 30 min.	−		
TSI:			
Slant	color no change		
Butt	color no change		
Gas	−		
Egg Yolk Reaction	−		

FERMENTATION CONDITIONS

Heteropolysaccharide S-60 is produced during the aerobic fermentation of suitable aqueous nutrient media under controlled conditions via the inoculation with the organism of the *Pseudomonas elodea* species. The media are usual media, containing source of carbon, nitrogen and inorganic salts.

In general, carbohydrates (for example, glucose, fructose, maltose, sucrose, xylose, mannitol and the like) can be used either alone or in combination as sources of assimilable carbon in the nutrient medium. The exact quantity of the carbohydrate source or sources utilized in the medium depend in part upon the other ingredients of the medium but, in general, the amount of carbohydrate usually varies between about 2% and 4% by weight of the medium. These carbon sources can be used individually, or several such carbon sources may be combined in the medium. In general, many proteinaceous materials may be used as nitrogen sources in the fermentation process. Suitable nitrogen sources include, for example, yeast hydrolysates, primary yeast, soybean meal, cottonseed flour, hydrolysates of casein, corn steep liquor, distiller's solubles or tomato paste and the like. The sources of nitrogen, either alone or in combination, are used in amounts ranging from about 0.05% to 0.2% by weight of the aqueous medium.

Among the nutrient inorganic salts which can be incorporated in the culture media are the customary salts capable of yielding sodium, potassium, ammonium, calcium, phosphate, sulfate, chloride, carbonate, and like ions. Also included are trace metals such as cobalt, manganese, iron and magnesium.

It should be noted that the media described in the examples are merely illustrative of the wide variety of media which may be employed, and are not intended to be limitative.

The fermentation is carried out at temperatures ranging from about 25° C. to 35° C.; however, for optimum results it is preferable to conduct the fermentation at temperatures of from about 28° C. to 32° C. The pH of the nutrient media for growing the Pseudomonas cul-