

(*Salvadora persica*)
(*Streptococcus Lactobacillus spp*)

(2001/12/2 2001/7/11)

Lactobacillus spp

Streptococcus

Mitis Salivarius Agar

Lact. fermenti Lact. Brevis Lact. acidophilus Lact. salivarius Lactobacillus casie

.Str. Salivarius Streptococcus mitis

.

**The Inhibitory Effect of Aqueous Extract of Siwak Plant
Salvadora persica on Lactic Acid Bacteria *Streptococcus*
and *Lactobacillus spp*. Isolated from Human Mouth**

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ABSTRACT

The study includes the isolation and identification of lactic acid bacteria which are considered as members of normal flora of the human mouth. These include the *Lactobacillus* and *Streptococcus spp*. on Mitis Salvarus Agar medium. Identification of these bacteria was performed depending on morphological and biochemical crieteria and the following species were identified: *Lactobacillus casie*, *Lact. brevis*, *Lact. acidophilus*, *Lact .salivarius*, *Lact. fermenti*, *Streptococcus mitis*, *Str. salivarius*, The study includes also the effect of the aqueous extract of *Salvadora persica* on the isolated bacteria which showed antiseptic effect on all species under the study.

Lactobacillus *Streptococcus*
Lactic acid bacteria

(Atlas, 1995 Turk et al., 1983)

Streptococcus mutans
Leucosyl transferase Fructosyl transferase

Gibbons and Nygaard, 1970)

.(Nolte, 1982

:

Streptococcus, *Neisseria*, *Haemophilus*, *Staphylococcus*, *Lactobacillus*, *Veillonellae*,
Corynebacterium, *Actinomycetes*, *Micrococcus*, *Proponibacterium*, *Escherchia*, *Proteus*,
.Pasteurella, *Treponema*, *Klebsiella*, *Pasteurella*, *Clostridium*

.(Carlsson 1967)

(pH)

(3-2) *Salvadora perica*

Salvadoraceae

: .1

Mitis salivarius agar

(75)

(72-48) (°37)

Co₂ (%8-10)

(°42)

()

Streptococcus

Lactobacillus

)

NaCl %6.5

Koneman et.al 1997 ; Finegold and)

(

.(Martin 1982

: .2

.

³ 100

10 (Riose et al., 1987)

24

.(Lyophilization)

(³ /mg 250)³ 2

0.5

0.22

2.5

.

(Bauer et al, 1966)

.

72-)

3 / 108

.Erythromycin

(48

Lactobacillus

23

(3-2)

(1)

Streptococcus

Str. mitis

Str.salivarius

(2)

(2001 ; 1995 ; Al.Dabbagh, 1983)

.(1995)

Streptococcus

Lactobacillus

: 1

							°42		
%30.44	-	-	+	+	+	d	d	7	<i>Lactobacillus casie</i>
%21.73	-	-	+	+	+	+	+	5	<i>Lact. Salivarius</i>
%13.04	-	-	+	-	d	d	-	3	<i>Lact. Brevis</i>
%13.04	-	-	+	-	-	+	+	3	<i>Lact. Acidophilus</i>
%8.7	-	-	+	-	-	+	+	2	<i>Lact. Fermenti</i>

Streptococcus

: 2

						% 6.5 NaCl			
%8.7	-	-	d	d	-	-	α	2	<i>Streptococcus mitis</i>
%4.35	-	-	d	-	-	-	γ	1	<i>Str salivarius</i>

.(3)

.....

: 3

S 20	<i>Lactobacillus casie</i>
S 16	<i>Lact. Salivarius</i>
S 16	<i>Lact.brevis</i>
S 17	<i>Lact. Acidophilus</i>
S 16	<i>Lact. Fermenti</i>
S 18	<i>Streptococcus mitis</i>
S 18	<i>Str. salivarius</i>
S 18	<i>Erythromycin (Control)</i>

S

(1982) (3)

Tannic acid Sinnigrin
fibrin fibrinogen

.(1986 1988)

.1982

.86-6

.2001

.34-33

.1986

.1988

.1995

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