

Table S1. Morphological, biochemical and percentage of identification by API 50 CHL, and ABIS online for *Lactobacillus* strains isolated from broiler chickens GIT

Test	Tentative Microorganisms														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Morphological traits	a	b	b	b	c	c	c	d	b	a	b	d	c	b	a
Cultural characters	x	x	y	z	t	t	t	z	x	y	z	z	z	y	x, z
Catalase test	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fermentation (API50CHL)															
Control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycerol	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Erythritol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-arabinose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-arabinose	-	-	-	-	+	+	+	?/48; +/72	+	-	-	-	-	-	?/24; +/48
D-ribose	-	-	-	-	+	+	+	?/48; +/72	-	-	-	-	-	+	?/24; +/48
D-xylose	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
L-xylose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-adonitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-βD-xylopyranoside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-galactose	-	-	+	?	+	+	+		?/24; +/48	+	+	+	+	+	+
D-glucose	-	?/24; +/48	+	+	+	+	+	+	?/24; +/48	+	+	+	+	+	+
D-fructose	+	?/24; +/48	+	+	+	+	-	+	?/24; +/48	+	+	+	+	+	+
D-mannose	+	-	-/24; +/48	?	-/48; +/72	-	-	-	?/24; +/48	-	+	+	+	+	?/24; +/48
L-sorbose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-rhamnose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dulcitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inositol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-mannitol	-	-	+	-	-	-	-	-	-	?	+	+	+	+	+
D-sorbitol	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Methyl-αD-mannopyranoside	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Methyl-αD-glucopyranoside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-acetylglucosamine	+	-/24; +/48	+	?	-/24; +/48	-	-	-	-	-	+	+	+	+	+
Amygdalin	-	-	?/24; +/48	-	-	-	-	-	-	-	-	-	-	+	+
Arbutin	-	-	+	-	-	-	-	-	-	-	+	-	-	+	+
Esculin	+	-/24; +/48	+	+	-/24; +/48	-	-	-/48; +/72	-	-	+	-/24; +/48	+	+	+

Salicin	-	-	+	-	-/24; +/48; +/72	-	-	-	-	-	-	-	-	+	+
D-cellobiose	-	-/48; +/72	+	-	-/48; +/72	-	-	-	-	-	-	-	-	+	+
D-maltose	-	-/48; +/72	+	+	+	+	+	+	+	?/24; +/48	-	+	+	+	+
D-lactose	-	-	+	-	+	+	+	+	?/24; +/48	+	-	+	+	+	+
D-melibiose	-	-	-/24; +/72	-	+	+	+	+	?/24; +/48	+	-	+	+	+	+
D+-saccharose (su+crose)	+	?/24; +/48	+	+	+	+	+	+	?/24; +/48	?/24; +/48	+	+	+	+	+
D-trehalose	-	-	+	-	-	-	-	-	-	-	-	+	+	+	+
Inulin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-melezitose	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
D-raffinose	+	?/24; +/48	+	+	+	+	+	+	+	+	+	+	+	+	+
Starch	-	-	?/24; +/48	-	-	-	-	-	-	-	-	-	-	-	+
Glycogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gentibiose	-	-	?/24; +/48	?	-/24; +/48	-	-	-	-	-	-	-	-	+	?/24; +/48
D-turanose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-lyxose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-tagatose	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
D-fucose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-fucose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-arabitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-arabitol	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
Potassium gluconate	-	-	-	-	+	+	+	-	-	-	-	-	-	+	+/48
Potassium 2- ketogluconate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium 5- ketogluconate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
API 50 CHL %	95.6	99.9	74.4	97.9	94.6	98.5	96.9	99.1	73.2	97.5	98.9	98.9	98.9	99.7	47.8
ABIS online %	78	78	88.3	82	90	94	95	92	85	88	94	90	91	86	91.1

1: *L. acidophilus* biotype 1, IBNA 26; 2: *L. acidophilus* biotype 3, IBNA 27; 3: *L. acidophilus* 1/*crispatus*, IBNA 64; 4: *L. acidophilus* biotype 3, IBNA 51; 5: *L. brevis* biotype 2, IBNA 24; 6: *L. brevis* biotype 2, IBNA 50; 7: *L. fermentum* biotype 1, IBNA 25; 8: *L. fermentum* biotype 1, IBNA 37; 9: *L. fermentum* biotype 1, IBNA 56; 10: *L. fermentum* biotype 1, IBNA 57; 11: *L. salivarius*, IBNA 29; 12: *L. salivarius*, IBNA 33; 13: *L. salivarius*, IBNA 41; 14: *L. plantarum* biotype 1, IBNA 48; 15: *L. plantarum* biotype 1, IBNA 61; x: small colonies, 0.5-1.0 mm in diameter, rarely larger, up to 2.0 mm, smooth type, round, opaque, white, transparent or colorless on MRS agar, in MRS broth forms homogenous turbidity, low deposit, powdery, lenticular, without surface formations; y = small to medium colonies, 1.0-2.0 mm in diameter, smooth type, round, with regular edges, glossy, semi-transparent or colorless on MRS agar, in MRS broth turbidity is diminished or absent, with small granular formations in suspension, abundant deposit, easily homogenizable and without surface formations; z = large colonies, 2.0-4.0 mm in diameter, semitransparent or transparent, colourless, white, smooth type, regular edges or lightly irregular on MRS agar, in MRS broth turbidity is moderate to intense, low deposit, lenticular, with granular formation in suspension and adherent of the test tube, difficult to homogenize, without surface formations; t = round colonies, medium and large ≤ 3.0 mm in diameter, slightly convex with regular, opaque, white or semitransparent, smooth type, regular edges on MRS agar, in MRS broth turbidity is reduced, with granular formations in suspension, abundant deposit, homogenizable by stirring, without surface formations; a: Gram positive, nonspore forming rods, arranged diplo or in short chains, with rounded ends; b: Gram positive, nonspore forming with thick rods or medium, long or short filaments slightly curved, straight ends, arranged diplo or in short chains or in palisade; c: Gram positive, nonspore forming rods, coc or cocobacil, arranged diblo, isolate, in short chains or irregular piles; d: Gram labile bacilli short or infrequent cocobacilli, thick, nonspore forming, arranged in long chains or irregular small piles; +: positive test; -: negative test; ?: dubious, weekly