



HOKKAIDO UNIVERSITY

Title	Native wild mammals as <i>Escherichia albertii</i> carriers in the Chugoku and Kinki regions of western Japan
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Supplementary Table 6. *Escherichia albertii* strains isolated in this study.

Strain number	1	2	3	4	5	6	7*1	8	9	10	11*1	12	13	14
Strain name	Bizen_MPC2 _220814OKA	Bizen_BG1 _220820KYO	Bizen_MT1 _220823OKA	Bizen_RD1 _220815HYO	Bizen_MT2 _220826HYO	Bizen_RD2 _220826KYO	Bizen_BG2 _220904OKA	Bizen_MT3 _220904OKA	Bizen_RD3 _220904OKA	Bizen_BG3 _220913OKA	Bizen_BG4 _220904OKA	Bizen_RD4 _220917TORI	Bizen_RD5 _220918HYO	Bizen_BG5 _220917KYO
Animal species	Masked palm civet	Badger	Marten	Raccoon dog	Marten	Raccoon dog	Badger	Marten	Raccoon dog	Badger	Badger	Raccoon dog	Raccoon dog	Badger
Genetic characteristics														
Genotypes														
O-genotype	EAOg1	EAOg19	EAOg25	EAOg25	EAOg5	EAOg5	EAOg18	EAOg38	EAOg5	EAOg5	EAOgUT	EAOgUT	EAOg8	EAOg30
H-genotype	EAHg4	EAHg4	EAHg3	EAHg3	EAHg1	EAHg1	EAHg3	EAHg2	EAHg1	EAHg1	EAHg4	EAHg2	EAHg1	EAHg3
Virulence genes														
aeae	+	+	+	+	+	+	+	+	+	+	+	+	+	+
cdt *2	-	+	+	+	+	+	+	+	+	+	+	+	+	+
stx	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E. albertii biogroup	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Biochemical properties*3,4														
β-Glucuronidase (CLIG)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas from glucose (TSI)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Glucose fermentation (TSI)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
H2S production (TSI)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lysine decarboxylase (LIM)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Motility (LIM, SIM) (37 °C, 24 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indole production (LIM, SIM)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IPA production (SIM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voges-Proskauer (37 °C, 24 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl red (37 °C, 48 hr)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Citrate utilization (Simmon's) (96 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetate utilization (96 hr)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Urease (Christensen's) (96 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
β-Galactosidase (ONPG)	+	+	+	+	+	+	+	-	+	+	+	+	+	+
Malonate utilization (Ewing modified) (48 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arginine dihydrolase (Moeller's) (48 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ornithine decarboxylase (Moeller's) (48 hr)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Esculin hydrolysis (48 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acid from carbohydrates (48 hr)														
Lactose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sucrose	-	+	-	-	-	-	+	-	-	-	-	+	-	-
L-Rhamnose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Xylose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Melibiose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Raffinose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dulcitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Mannitol	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inositol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Sorbitol	-	-	-	-	-	-	-	-	-	-	+	-	-	+
D-Cellobiose	-	-	-	-	-	-	-	-	-	-	+	-	-	-
D-Trehalose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Arabinose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Sorbose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adonitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Maltose	+	+	+	+	+	+	+	+	+	+	-	+	-	+
Salicin	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Strain number	15* ¹	16* ¹	17* ¹	18* ¹	19	20	21	22	23	24	25* ¹	26* ¹	27	28
Strain name	Bizen_RD6 _220918HYO	Bizen_RD7 _220918HYO	Bizen_FX1 _220923OKA	Bizen_FX2 _220923OKA	Bizen_MPC3 _220920HYO	Bizen_BG6 _220921KYO	Bizen_RD8 _220921KYO	Bizen_FX3 _220924KYO	Bizen_RD9 _221002HYO	Bizen_BG7 _221009KYO	Bizen_BG8 _221010HYO	Bizen_BG9 _221010HYO	Bizen_RD10 _221009TORI	Bizen_RD11 _221011HYO
Animal species	Raccoon dog	Raccoon dog	Fox	Fox	Masked palm civet	Badger	Raccoon dog	Fox	Raccoon dog	Badger	Badger	Badger	Raccoon dog	Raccoon dog
Genetic characteristics														
Genotypes														
O-genotype	EAOg5	EAOg7	EAOg25	EAOg26	EAOgUT	EAOgUT	EAOg5	EAOg5	EAOg7	EAOg1	EAOg10	EAOg18	EAOgUT	EAOg11
H-genotype	EAHg1	EAHg3	EAHg3	EAHg1	EAHg3	EAHg4	EAHg1	EAHg1	EAHg3	EAHg4	EAHg4	EAHg3	EAHg2	EAHg1
Virulence genes														
<i>eae</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>cdt</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>stx</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>E. albertii</i> biogroup	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Biochemical properties														
β-Glucuronidase (CLIG)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas from glucose (TSI)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Glucose fermentation (TSI)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
H ₂ S production (TSI)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lysine decarboxylase (LIM)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Motility (LIM, SIM) (37 °C, 24 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indole production (LIM, SIM)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IPA production (SIM)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voges-Proskauer (37 °C, 24 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl red (37 °C, 48 hr)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Citrate utilization (Simmon's) (96 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetate utilization (96 hr)	+	+	+	+	+	+	+	+	+	-	+	+	+	+
Urease (Christensen's) (96 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
β-Galactosidase (ONPG)	+	-	+	-	+	+	+	+	-	+	+	+	+	-
Malonate utilization (Ewing modified) (48 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arginine dihydrolase (Moeller's) (48 hr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ornithine decarboxylase (Moeller's) (48 hr)	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Esculin hydrolysis (48 hr)	-	-	-	-	-	-	-	-	-	+	-	-	-	-
Acid from carbohydrates (48 hr)														
Lactose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sucrose	-	+	-	+	+	-	-	-	+	-	-	+	+	-
L-Rhamnose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Xylose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Melibiose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Raffinose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dulcitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Mannitol	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inositol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Sorbitol	-	-	-	-	+	+	-	-	-	-	-	-	-	+
D-Cellobiose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Trehalose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Arabinose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Sorbose	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adonitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Maltose	+	+	+	+	+	-	+	+	+	+	+	+	+	+
Salicin	-	-	-	-	-	-	-	-	-	+	-	-	-	-

*¹Strains 7 and 11, 15 and 16, 17 and 18, 25 and 26, and 32 and 33 were isolated from one sample each.

*²Detected as *Eacd*t (*E. albertii* -specific *cdt* gene)

*³Gray bands indicate the results in the assays for biochemical properties of the criteria for isolation and identification, and yellow bands indicate those for classification into *E. albertii* biogroup 3.

*⁴Acetate agar, Christensen's urea agar, esculin agar, Moeller's decarboxylase broth, and purple agar for carbohydrate fermentation were made in our laboratory (Supplementary Table 3).