

Supporting Table 3. Amino acid residues substitutions detected in the soil DNA compared to BLA-TEM1 shown at the top. Numbers in

parenthesis indicate the number of isolates containing a mutation for each position. Comparisons to TEM1 were done using the amino acid residues numeration as previously established (3).

Postion BLA-TEM1	1	8	9	10	11	12	13	14	15	16	17	18	19	20	21	24	26	29	31	32	33	34	35	31	42	51	52	56	58
Soil DNA	R I L (4)	C S (3)	P V (11)	C S (10)	R P (10)	R P (10)	N Y F (11)	S (9)	L S (6)	S L (4)	S (1)	A (1)	A (1)	F (1)	C R Y (4)	L F S (2)	H L (1)	T A (1)	V A (1)	K E (1)	V A (1)	K N (3)	D G (1)	E G (1)	A V (1)	L P (1)	N S (2)	I V (1)	E G (4)
Postion BLA-TEM1	60	61	63	64	68	69	70	72	73	74	77	82	84	86	92	94	95	96	91	98	99	100	101	102	104	106	107	113	119
Soil DNA	F L (1)	R P (1)	E K (1)	E G (2)	M V (1)	M V (2)	S G (1)	F L (1)	K R (2)	V I (1)	C R (2)	S F (1)	V I (135)	A T (1)	G S (1)	R H (1)	I V T (3)	H R (5)	Y C (4)	S P (2)	Q R (4)	N D (2)	D G (1)	L M (1)	E K (1)	S L A P (4)	P S (1)	L P (3)	V A (1)
Postion BLA-TEM1	121	123	124	130	135	136	139	140	141	144	151	154	159	162	164	165	175	176	177	179	182	184	189	190	192	193	199	202	204
Soil DNA	E G (2)	C R (1)	S G (1)	S G (3)	A V (2)	N D (2)	L P (1)	T A (3)	T A (1)	G R (1)	F L (1)	N S I (3)	V A (1)	L P (1)	R H (1)	W L (1)	N I (2)	D G (2)	E G (1)	D G N (2)	M T (1)	A V I (138)	T A (1)	L M (1)	K R (1)	L P (2)	L P (1)	A T (1)	R Q (1)
Postion BLA-TEM1	210	211	212	213	218	220	222	226	230	233	234	236	240	241	243	247	248	252	255	259	260	262	273	274	275	276	277	278	279
Soil DNA	W R (2)	M I V (2)	E G K (2)	A V (1)	G E (1)	L H (1)	R C H (2)	P S (1)	F L S (4)	D V (1)	K R (2)	G E (1)	E K (1)	R H (1)	S P (2)	I T (2)	A T (1)	P L (1)	G S (2)	R H (1)	I F (1)	V A (1)	D M (1)	E N (1)	R E (1)	N D (2)	R D (1)	Q R (3)	I S T L (8)
Postion BLA-TEM1	280	281	282	283																									
Soil DNA	A L V D M (23)	E R (25)	I R V (2)	G V (1)																									