

Table 7: Pseudogenes in *Y. pseudotuberculosis* IP32953

<i>Y. pseudotuberculosis</i> IP32953 gene	<i>Y. pestis</i> KIMI10+ gene	<i>Y. pestis</i> CO92 gene	Type of mutation	Product
YPTB0014	y3815	YPO0013	F/S	molybdopterin-guanine dinucleotide biosynthesis protein A
YPTB0146	y0347	YPO3886	partial	colicin
YPTB0148	NC	YPO3884	partial	colicin
YPTB0187	absent	absent	IS285	hypothetical
YPTB0361	y0564	YPO0304	F/S	putative resistance protein (transport)
YPTB0390	y0595	YPO0336	partial	insertion element protein
YPTB0394	NC	YPO0340	partial	transposase
YPTB0534	y0749	YPO3438	stop	Integrase (intB)
YPTB0665	absent	absent	partial	putative cytoplasmic protein
YPTB1018	y1088	YPO3090	F/S	5'-nucleotidase/UDP-sugar diphosphatase
YPTB1042	NC	YPO2819	partial	phage integrase
YPTB1060	NC	YPO2797	multiple	hypothetical
YPTB1129	y1213	YPO2639	partial	integrase
YPTB1131	y1215	YPO2641	partial	phage family integrase
YPTB1134	y3081	absent	partial	putative prophage integrase
YPTB1271	y2951	YPO1236	stop	putative class II aldolase-family protein
YPTB1295	y2926	YPO1259	partial	putative bacteriophage protein
YPTB1364	y2847	YPO1334	inframe deletion	putrescine transport system permease protein
YPTB1466	y2722	YPO1448	partial	transposase
YPTB1468	y2719	YPO1449	multiple	cytotoxic necrotizing factor
YPTB1602	y2393	YPO1917	F/S	integrase
YPTB1707	NC	YPO1833	F/S	conserved hypothetical
YPTB1878	y2439	YPO1869	partial	phage replicative DNA helicase
YPTB1880	y2440	YPO1868	F/S	putative transposase
YPTB1893	y2435	YPO1874	F/S	conserved hypothetical
YPTB1894	y2434	YPO1875	partial	putative major tail sheath protein
YPTB1903	y2426	YPO1883	IS285	hypothetical protein
YPTB1904	y2425	YPO1884	F/S	transposase
YPTB1908	NC	YPO1888	partial	putative transposase
YPTB1909	NC	YPO1889	partial	putative transposase
YPTB2201	absent	absent	partial	na ⁺ /H ⁺ antiporter
YPTB2202	y2113	YPO2283	insertion	putative LacI-family transcriptional regulator
YPTB2384	y1859	YPO1697	F/S	pili assembly chaperone protein
YPTB2408	y1822	YPO1663	F/S	flagellin biosynthesis txn reg.
YPTB2495	absent	absent	deletions	glucans biosynthesis protein
YPTB2524	y1701	YPO2486	partial	hemagglutinin-like secreted protein
YPTB2730	y1471	YPO3010	stop	hypothetical
YPTB2748	y1452	YPO3031	partial	putative acetyltransferase
YPTB2752	absent	absent	multiple	integrase
YPTB2930	y1252	YPO2679	F/S	PTS system, cellobiose-specific IIC component
YPTB3040	y3179	NC	partial	Conserved hypothetical protein
YPTB3096	y3236	YPO0851	partial	PTS transport protein
YPTB3127	y3268	YPO0886	partial	insertion sequence protein
YPTB3128	y3270	NC	partial	putative prophage protein
YPTB3178	y3288	YPO0902	F/S	Putative surface protein
YPTB3233	NC	YPO0961	partial	integrase
YPTB3234	y3349	YPO0962	partial	conserved hypothetical
YPTB3240	y3356	YPO0967A	partial	insertion sequence protein
YPTB3253	NC	YPO0979	partial	insertion element protein
YPTB3254	NC	YPO0980A	partial	insertion element protein
YPTB3359	y3476	YPO0702	stop	putative exported protein
YPTB3367	absent	absent	partial	transposase
YPTB3423	y3545	YPO0632	F/S	hypothetical protein
YPTB3450	y3575	YPO0603	partial	putative hemagglutinin/hemolysin-related protein
YPTB3540	y0170	YPO3693	promoter deletion	Conserved hypothetical protein
YPTB3651	y0022	YPO3720	F/S	hemolysin activator protein
YPTB3853	y4039	YPO4018	partial	pyridoxal-phosphate dependent protein
YPTB3854	y4040	YPO4019	start codon mutation	putative phosphoribosyl transferase protein
YPTB3861	y4047	YPO4026	partial	phage hypothetical protein
YPTB3874 and YPTB3877	absent	absent	IS100	mrr restriction system protein, pseudogene
YPTB3927	y4078	YPO4058	stop	formate dehydrogenase-O, major subunit
YPTB3933	y4071	YPO4051	partial	transposase

NC = present but not called

F/S = frameshift

not a pseudogene

a pseudogene or absent from the genome

a pseudogene but previously called as a functional; or missed in the annotation