

Supplemental Table 7: Example IS6110 insertion element variation.

Example large events found in the Pilon and Pilon-frag runs corresponding to two IS6110 elements in the *M. tuberculosis* F11 genome. In the first example at position 1,541,957 in the H37Rv genome the Pilon run identified this 1358 base event to within just 4 bases while the Pilon-frag run identified two separate smaller events, coming from each side of the known event. In the second example at H37Rv position 2,684,042, the Pilon run has identified the insertion event to within 1 base of 1358 bases total while the Pilon-frag run has also identified a single event but only an insertion length of 361 bases with an incomplete alternative sequence.

Pilon			Pilon-frag			F11		
position	event details	length	position	event details	length	position	event details	length
1541957	SVTYPE=DEL; SVLEN= -1358; END= 1543315	-1358	1541957	SVTYPE=INS; SVLEN=176; END= 1541957	176	1541957	SVTYPE=DEL; SVLEN= -1354; END= 1543311	-1354
-	-	-	1543315	SVTYPE=INS; SVLEN=183; END= 1543315	183	-	-	-
2684042	SVTYPE=INS; SVLEN= 1358; END= 2684042	1358	2684042	SVTYPE=INS; SVLEN=361; END= 2684042	361	2684042	SVTYPE=INS; SVLEN= 1357; END= 2684042	1357

Legend:

Pilon: Pilon run using input of small (frags) and large (jump) insert libraries from *M. tuberculosis* F11.

Pilon-frag: Pilon run using input of small (frags) and large (jump) insert libraries from *M. tuberculosis* F11.

F11: Event details in the *M. tuberculosis* F11 reference genome. This is the known truth.

position: The start coordinate of the large event in the *M. tuberculosis* H37Rv reference genome.

event details: Type of large event (SVTYPE) ; length of large event (SVLEN); the end coordinate of the large event.

length: Length of large event found by Pilon or in the F11 known truth.

SVTYPE: Type of structural variant. DEL = Deletion. INS = Insertion.

SVLEN: Difference in length between REF and ALT alleles.

END: End position of the variant described in this record