A

Genetic Alteration	KPA171202 Locus_tag	Product Name	Length (bp)	SK137 Locus_tag	Product Name	Length (bp)
TAGATA deletion in type II	PPA1796*	triacylglycerol lipase precursor	1,020	HMPREF0675_4855*	triacylglycerol lipase	888
1base deletion at 124th nt	NA	NA	NA	HMPREF0675_4856*	triacylglycerol lipase	1,014
TACA insertion in type IA/IB at 505th nt	PPA1425*	putative lysophospholipase	1,134	HMPREF0675_4479*	putative Lysophospholipase L2	498
				HMPREF0675_4480*	putative Lysophospholipase L2	168
				HMPREF0675_4481*	putative Lysophospholipase L2	426
13bp insertion in IB-3/type II	PPA0594*	putative lysophospholipase	939	HMPREF0675_3655/3657	hypothetical protein	926
10C in SK137, normaly 6C	PPA1761	cardiolipin synthetase	1,269	HMPREF0675_4816*	phospholipase D domain protein	1,188
				HMPREF0675_4817	hypothetical protein	
Premature stop codon at 170 th nt	PPA2142*	putative lysophospholipase	1,122	HMPREF0675_5205*	lysophospholipase L2 domain protein	1,122
				HMPREF0675_5206*	lysophospholipase L2	
Conserved	PPA1953*	patatin-like phospholipase	1,503	HMPREF0675_5014*	phospholipase, patatin family	1,503
Conserved	PPA2036*	lipase/acylhydrolase	909	HMPREF0675_5101	GDSL-like protein	909
Conserved	PPA2105*	triacylglycerol lipase precursor	1,020	HMPREF0675_5159*	triacylglycerol lipase	1,020
Conserved	PPA1035*	putative lipase	1,287	HMPREF0675_4093/4094	hypothetical protein	1,287
Conserved	PPA1101*	putative esterase/lipase YbfF	819	HMPREF0675_4163	hydrolase, alpha/beta domain protein	819
Conserved	PPA1967*	putative lysophospholipase	957	HMPREF0675_5031	hydrolase, alpha/beta domain protein	957
Conserved	PPA2312*	lipase/esterase	930	HMPREF0675_5390	hydrolase, alpha/beta domain protein	930
Conserved	NA	NA	NA	HMPREF0675_3037*	phospholipase, patatin family	1,032

B

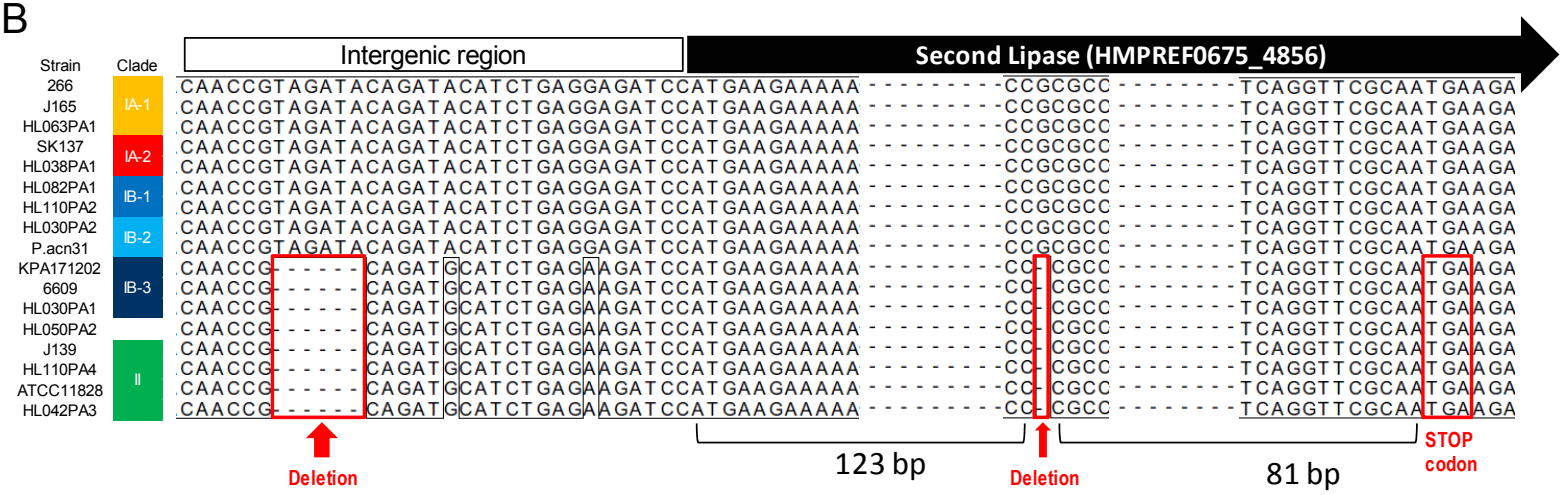

Figure S5. Genes with putative lipase activity in the *P. acnes* genomes. (A) Summary of 13 genes with putative lipase activity based on the annotations of KPA171202 and SK137 genomes. (B) Insertions/deletions and frameshift observed in ORF HMPREF0675-4856.