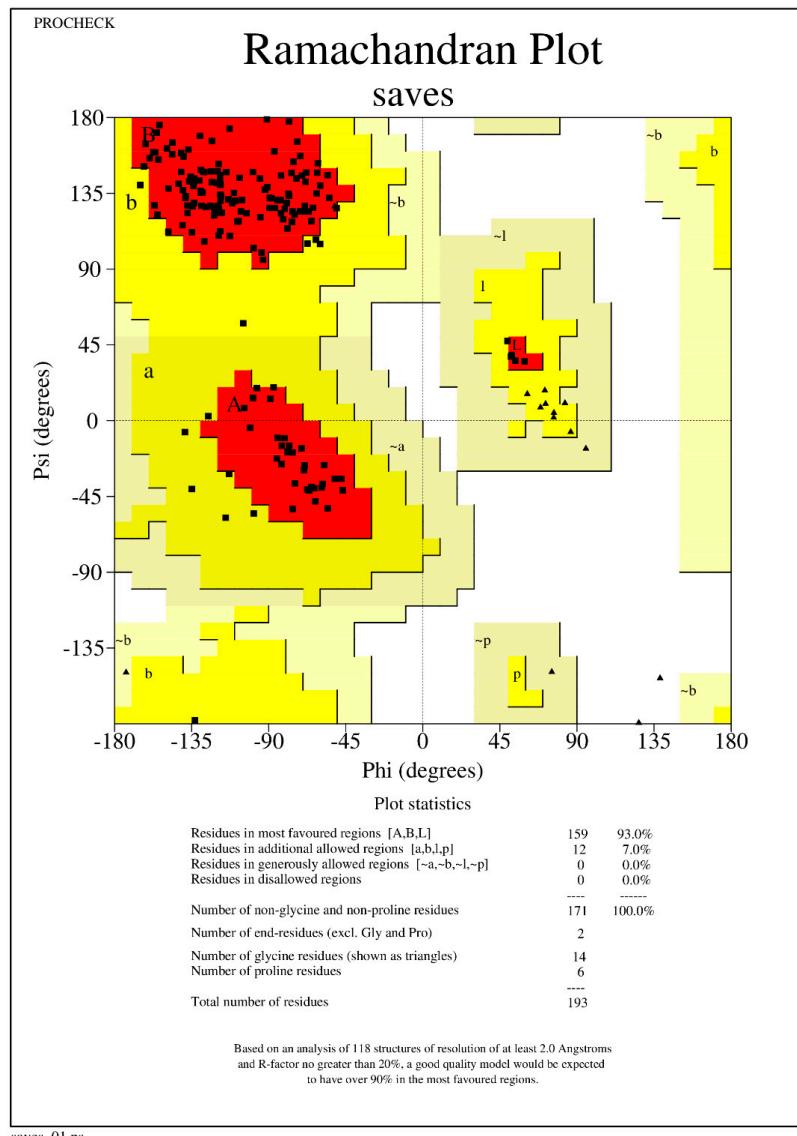


**Supplementary Table S1.** The primers used in this study.

Primers	Sequence (5'-3')	Purpose
OnSAP-F	GCACTCTTCCAACAATCT	Sequencing
OnSAP-R	CACTCTTCCAACAATCT	Sequencing
EOnSAP-F	CCGAAATTCAATAAAATATTCATCTTCCCACAAACAA	Protein expression
EOnSAP-R	CCGAAGCTTCACTCTTCCAACAATCTGAAACTCA	Protein expression
qOnSAP-F	TCTCTGGCTACACCCCTGTCTAT	RT-qPCR
qOnSAP-R	ATCCCCTCAACTTATTGCCTTGCG	RT-qPCR
T7	TAATACGACTCACTATAGGG	Sequencing
T7t	GCTAGTTATTGCTCAGCGG	Sequencing
$\beta$ -actin-F	CGAGAGGGAAATCGTGCCTGACA	Control, RT-qPCR
$\beta$ -actin-R	AGGAAGGAAGGCTGGAAAGAGGGC	Control, RT-qPCR



**Supplementary Figure S1.** Ramachandran PLOT analysis for OnSAP structure verification.