

Table S1 The calibration curve of AST stereoisomers

Samples	Linear equation	R^2
<i>S</i> AST	$Y = 87340X + 56981$	0.9993
<i>M</i> AST	$Y = 167391X + 389431$	0.9992
<i>R</i> AST	$Y = 90540X - 137991$	0.9996

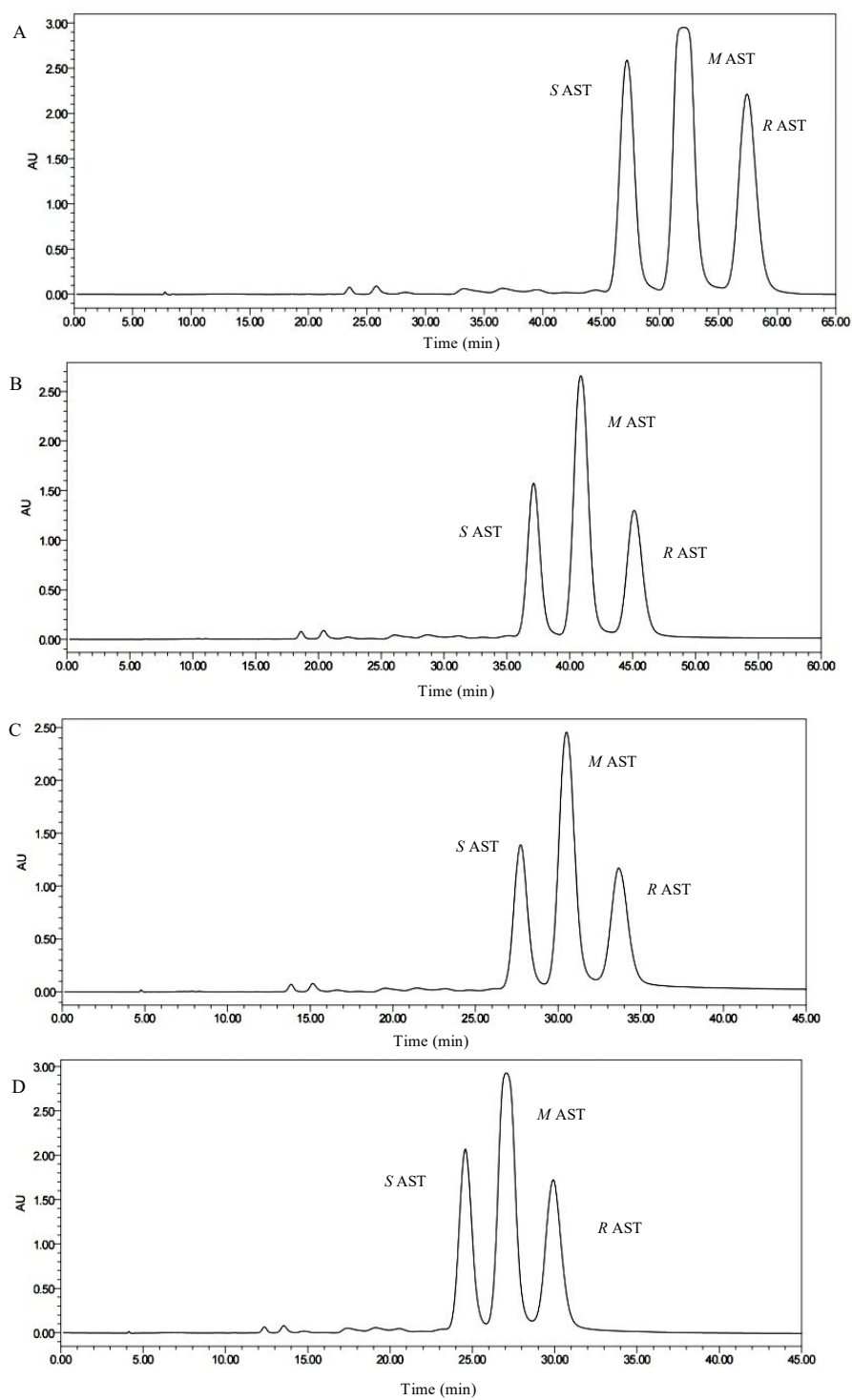


Figure. S1 HPLC chromatograms of all-trans AST in different flow rate: (A) 2.13 mL/min, (B) 2.60 mL/min, (C) 3.06 mL/min, (D) 4.02 mL/min.

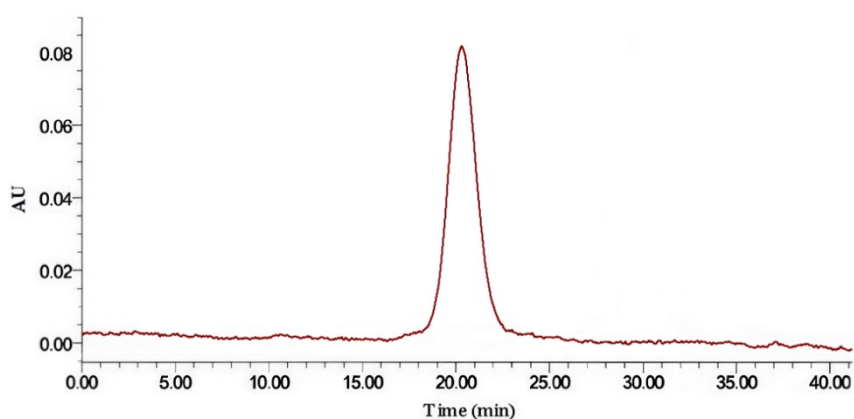


Figure. S2 HPLC chromatogram of trans AST prepared from *H. pluvialis*.

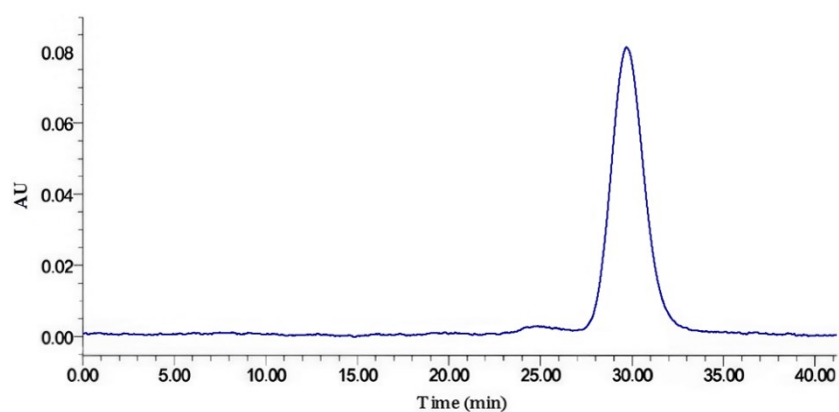


Figure. S3 HPLC chromatogram of trans AST prepared from *P. rhodozyma*.

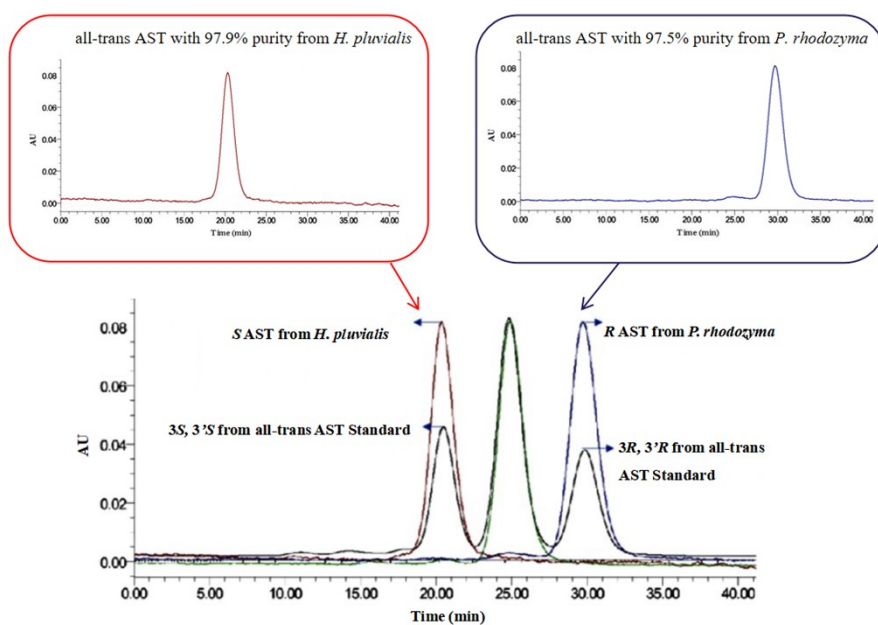


Figure. S4 HPLC-UV chromatogram of all trans AST stereoisomers: *H. Pluvialis* extract (red line), *P. Rhodozyma* extract (blue line)