

Table 39 Amino Acids as Chiral Selectors

Sample no.	Racemate resolved	Chiral selector	hR_f		Ratio of solvents	Detection limit	Ref.
			(+)	(-)			
1	(±)-Ibuprofen	L-Arginine	80	77	5:1:1	0.1 μg of racemic mixture	186
2	Atropine	L-Histidine	4.6	9.2	11.3:5.4:0.6	6 μg	187
3	(±)-Atenolol	L-Lysine	10	03	16:4, 16:2, 15:2	2.6 μg	188
4	(±)-Propranolol	L-Arginine	12	18	15:5, 14:6	2.6 μg	188
		L-Lysine	13	04	15:2, 16:2		
5	(±)-Metoprolol	L-Arginine	26	07	15:3, 16:4	0.26 μg	188
		L-Lysine	15	11	15:4, 15:5		
		L-Arginine	23	12	15:3, 16:4		

Detection: Iodine vapor.

Solvent system: Samples 1 and 2, MeCN–MeOH–H₂O; samples 3–5, MeCN–MeOH.

determination of enantiomeric purity of certain pharmaceutically important compounds marketed as racemic mixtures. During the last few years, there have been reports on the resolution of (±)-ibuprofen, (±)- β -blockers, atropine, etc., into their enantiomers using thin silica gel plates impregnated with one or the other pure isomer of an amino acid. Some of these results are summarized in Table 39.

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