

Fig.14 Typical mass chromatograms and mass spectra obtained from rat hair root after administration at 3mg/kg i.p. injection

Table 2 Determination of TZ, 1-OH TZ, 4-OH TZ and 1,4-d₁OH TZ in rat hair shaft and hair root after 1 p. administration of TZ

	TZ (ng/10mg)	1-OH TZ (ng/10mg)	4-OH TZ (ng/10mg)	1,4-d ₁ OH TZ* (ng/10mg)
6mg/kg hair shaft	0.82	0.40	2.7	ND
average	0.61	0.33	2.9	ND
S.D.	0.72	0.37	2.8	
	0.14	0.05	0.13	
3mg/kg hair shaft	0.48	0.23	1.3	ND
average	0.45	0.18	1.2	ND
S.D.	0.86	0.32	2.9	ND
	0.60	0.24	1.8	
	0.24	0.070	0.95	
6mg/kg hair root	0.41	1.4	6.0	1.8
average	1.4	1.5	6.9	1.7
S.D.	1.1	1.9	8.2	2.4
	0.94	1.6	7.1	2.0
	0.48	0.30	1.1	0.38
3mg/kg hair root	3.9	0.95	6.2	1.4
average	1.2	0.37	4.1	1.5
S.D.	2.2	2.0	10	1.9
	2.4	1.1	6.9	1.6
	1.4	0.81	3.2	0.27

ND, not determined

*The concentrations were tentatively calculated based on the calibration curve of 1-OH TZ

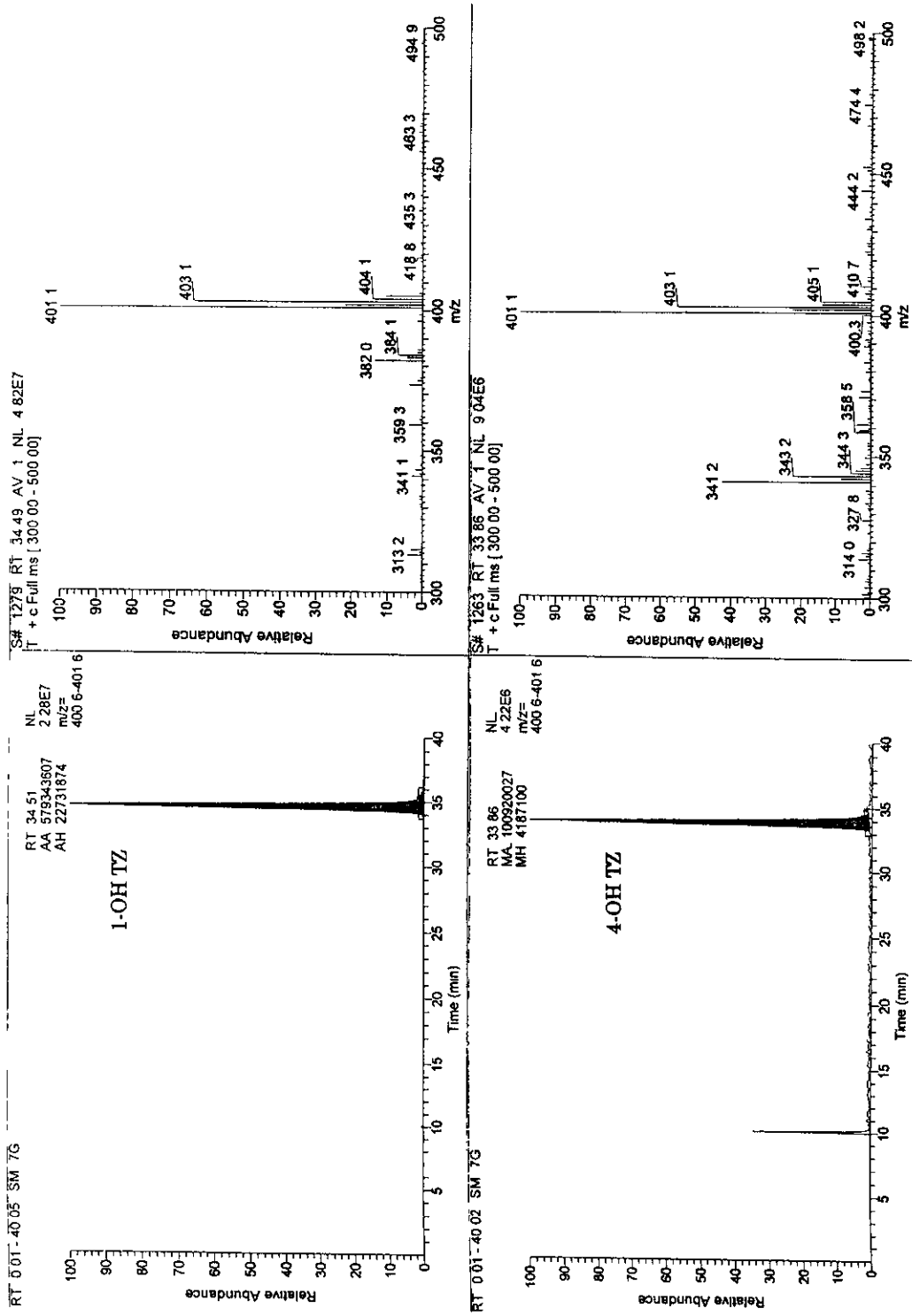


Fig 15 Mass chromatograms and mass spectra of authentic compounds after acetylation

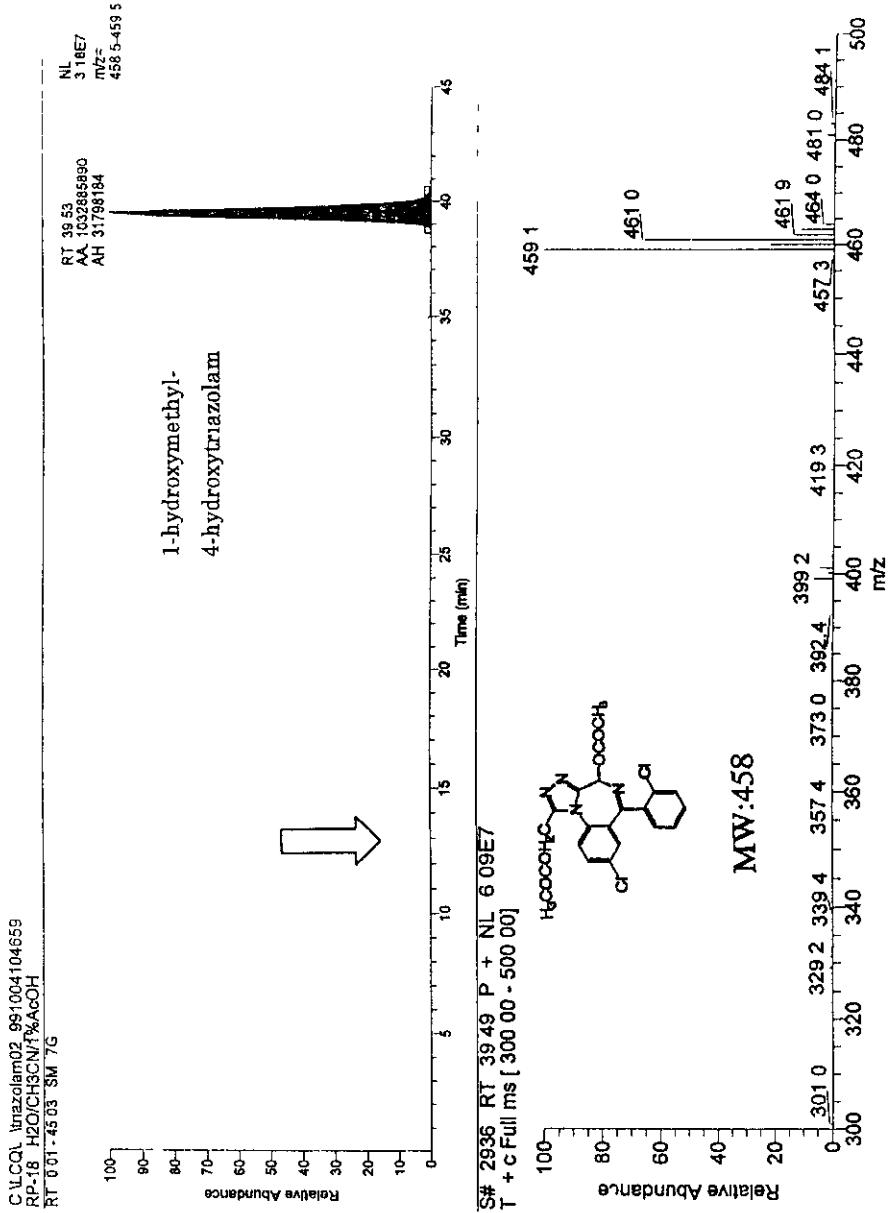


Fig 16 Mass chromatograms and mass spectra of rat liver microsomes after acetylation

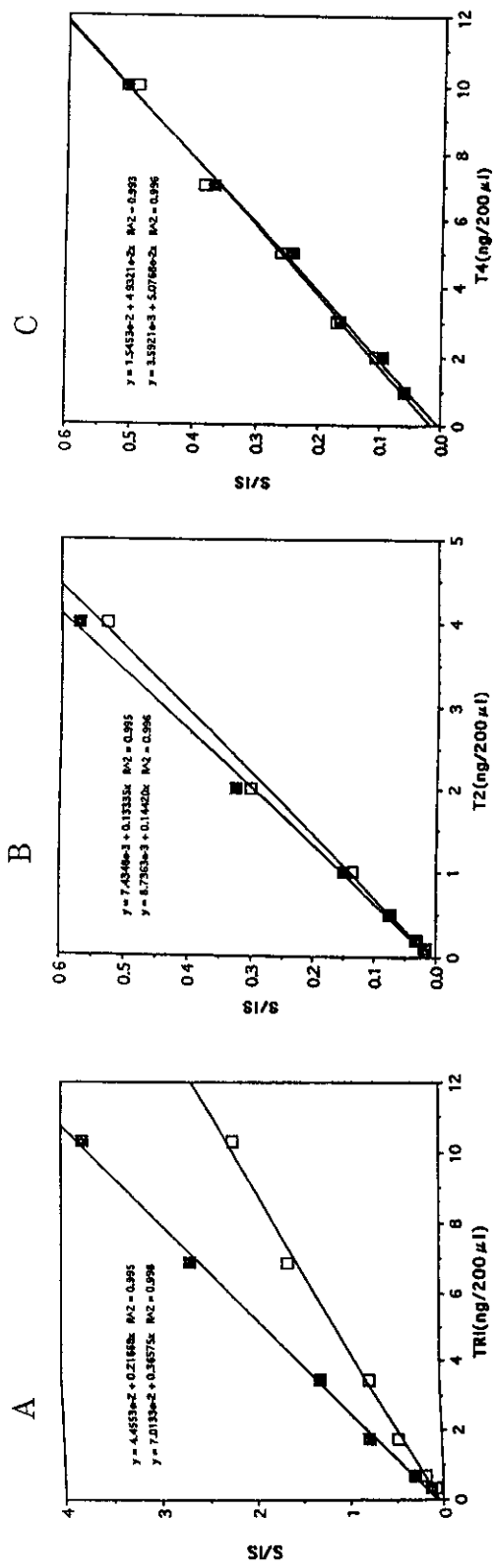


Fig.17 Calibration curves of TZ, 1-OH TZ and 4-OH TZ with SIM

A TZ, B 1-OH TZ, C 4-OH TZ,
IS. 1-OH TZ d4 (5ng/injection)

- Area
- Height

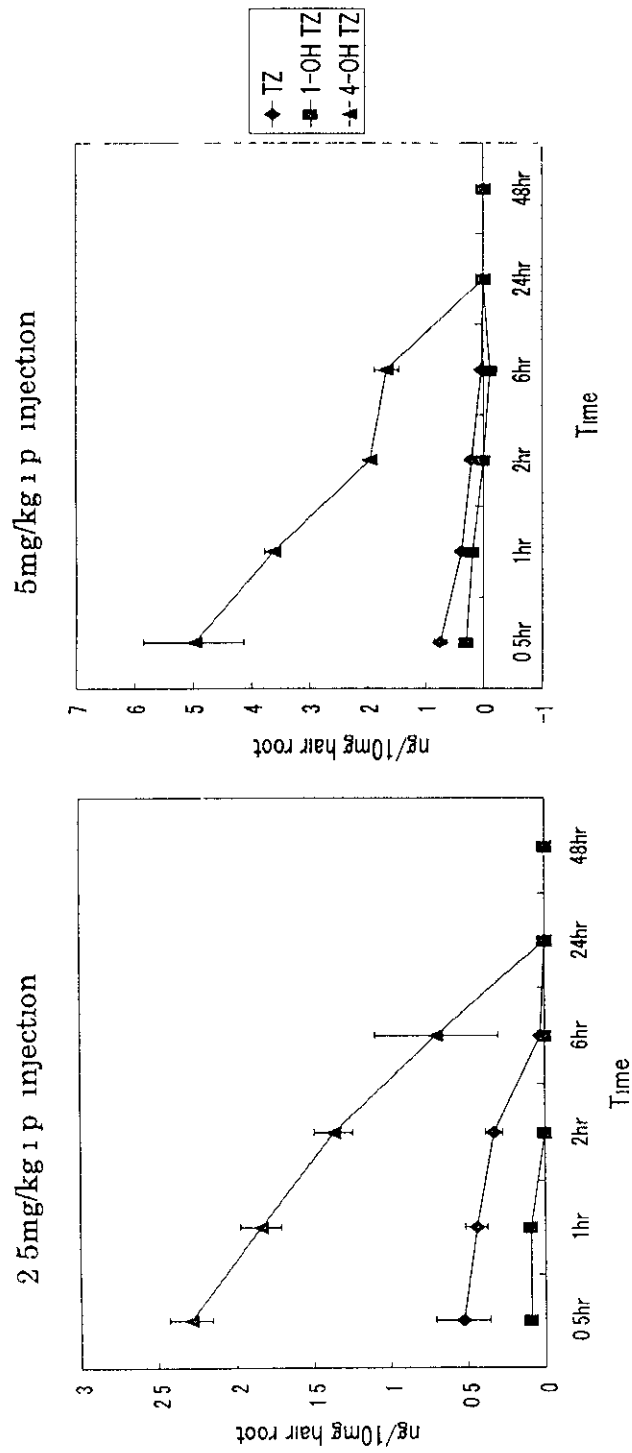


Fig 18 Time courses of TZ in rat hair root (mean±SD, n=3)

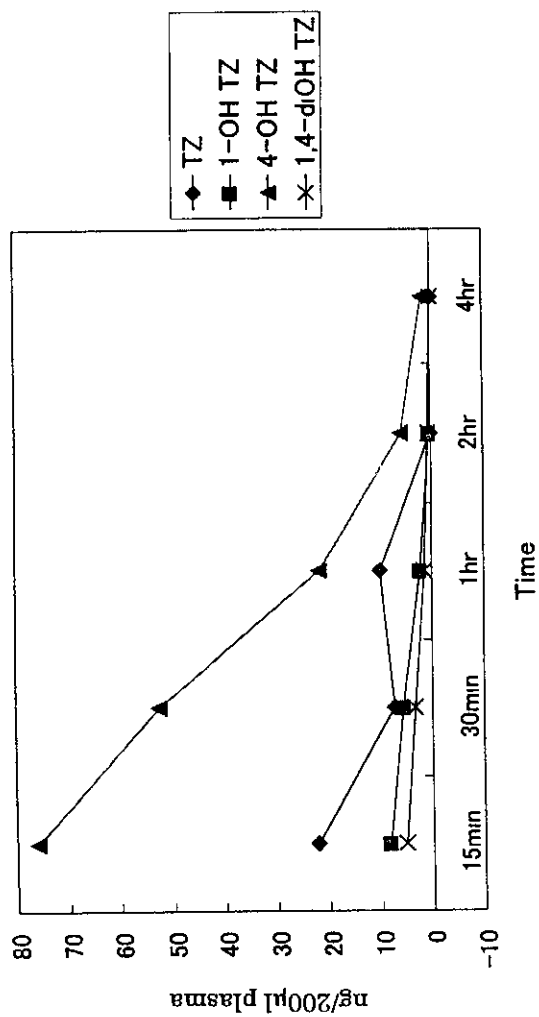


Fig 19 Time courses of TZ in rat plasma

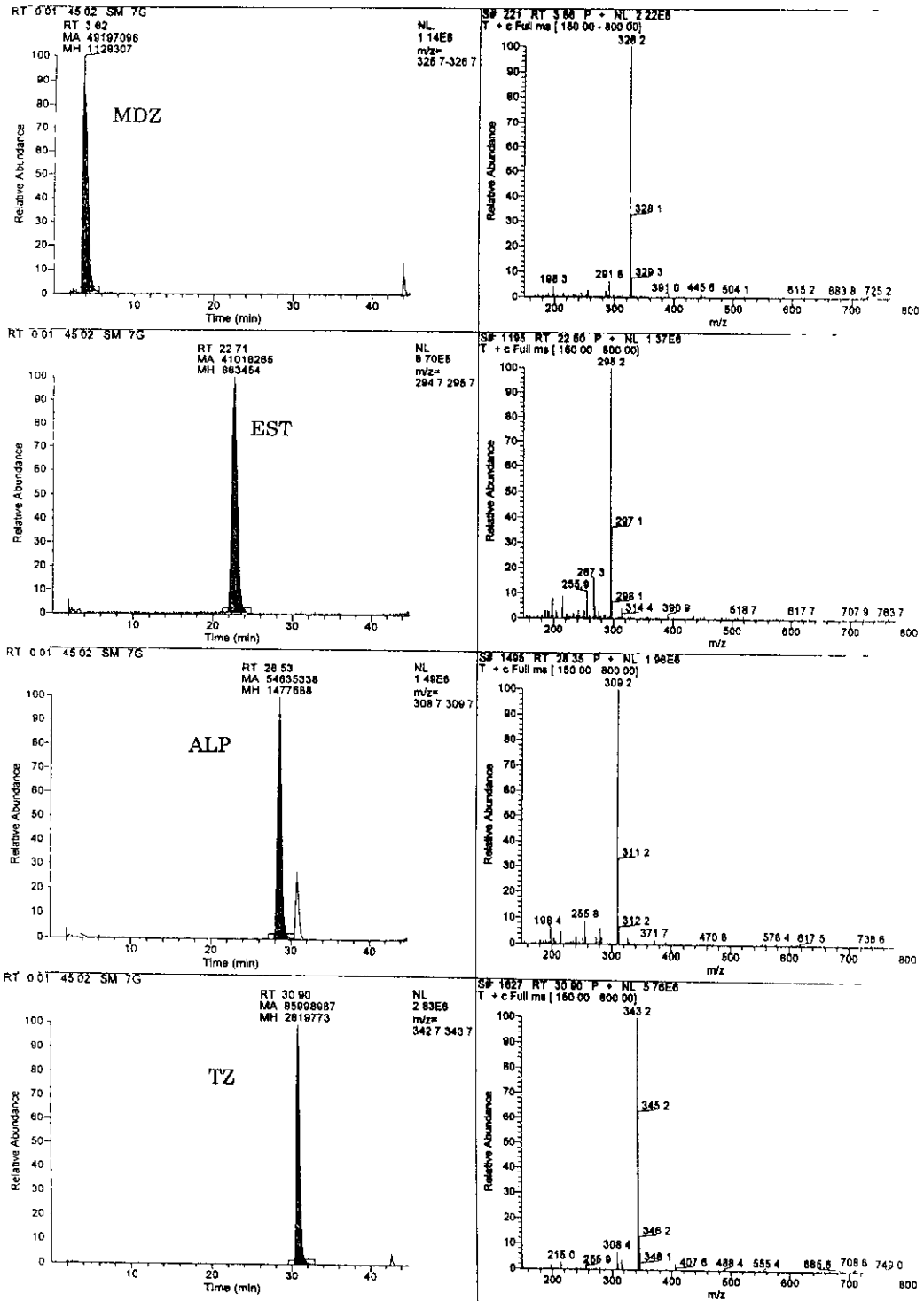


Fig 20 Mass chromatograms and mass spectra of benzodiazepines

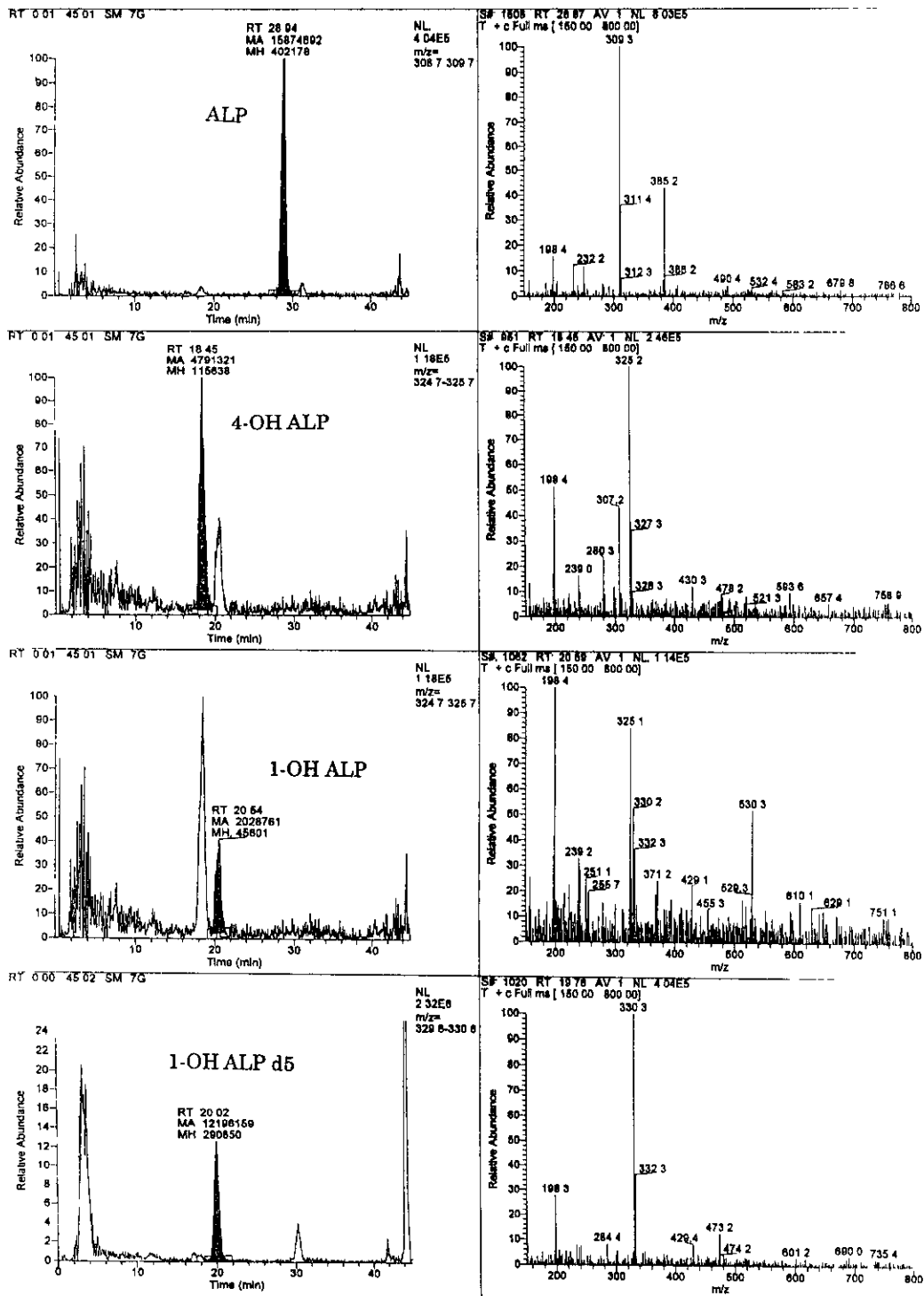


Fig 21 Typical mass chromatograms and mass spectra of ALP and its metabolites in rat hair

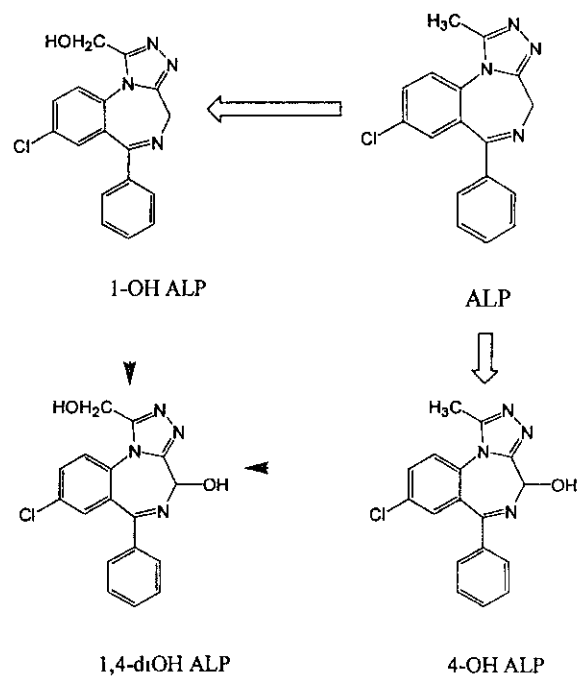


Fig 22 Possible metabolic pathways leading to alprazolam

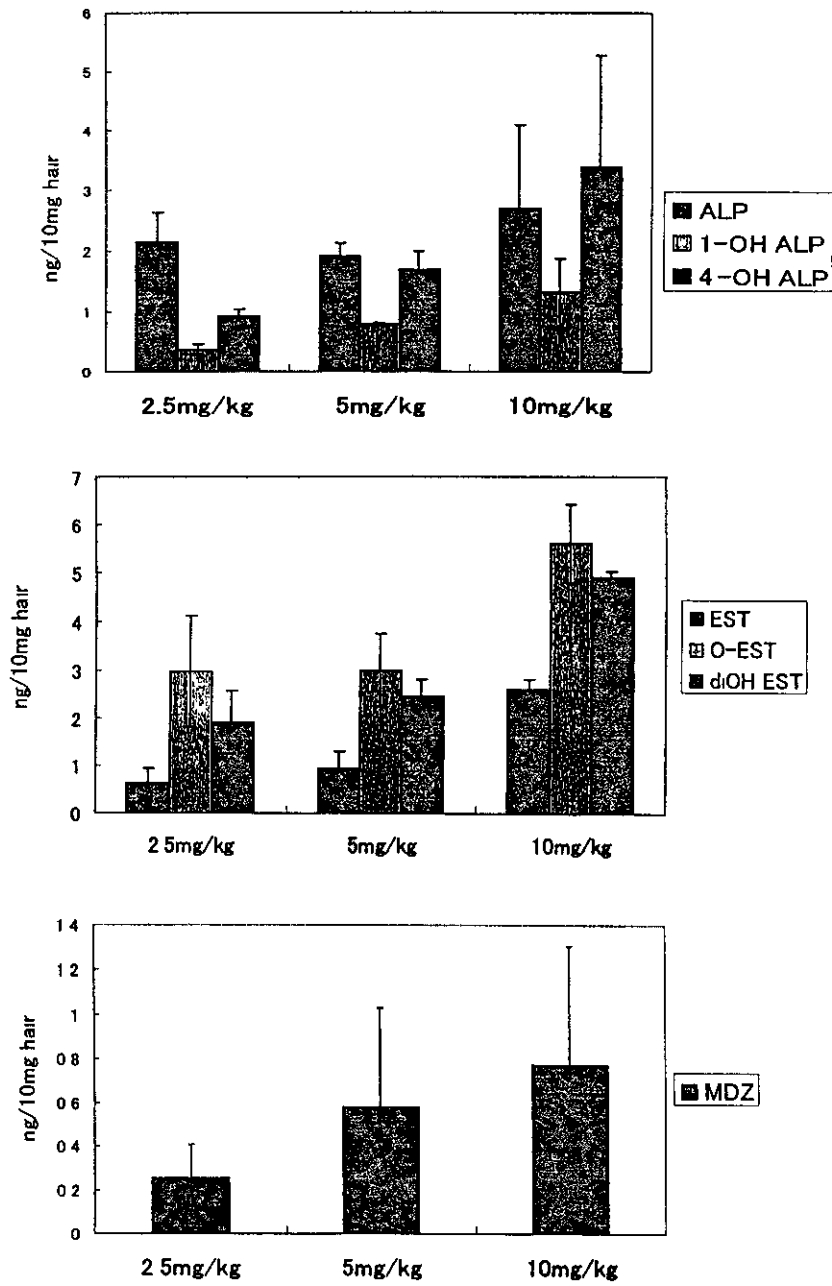


Fig.23 Effect of i.p. injection amounts of ALP, EST and MDZ in rat hair shaft (mean±S.D.,n=3)

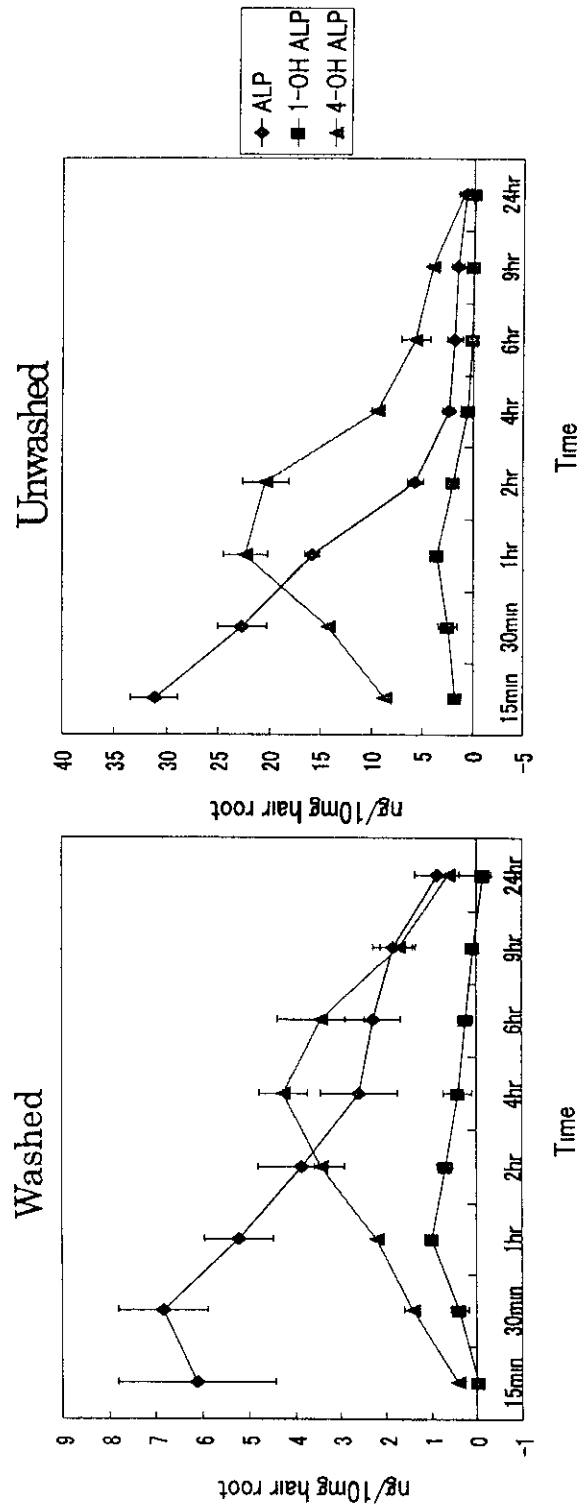


Fig.24 Time courses of ALP and its metabolites in rat hair root (mean±SD, n=3)

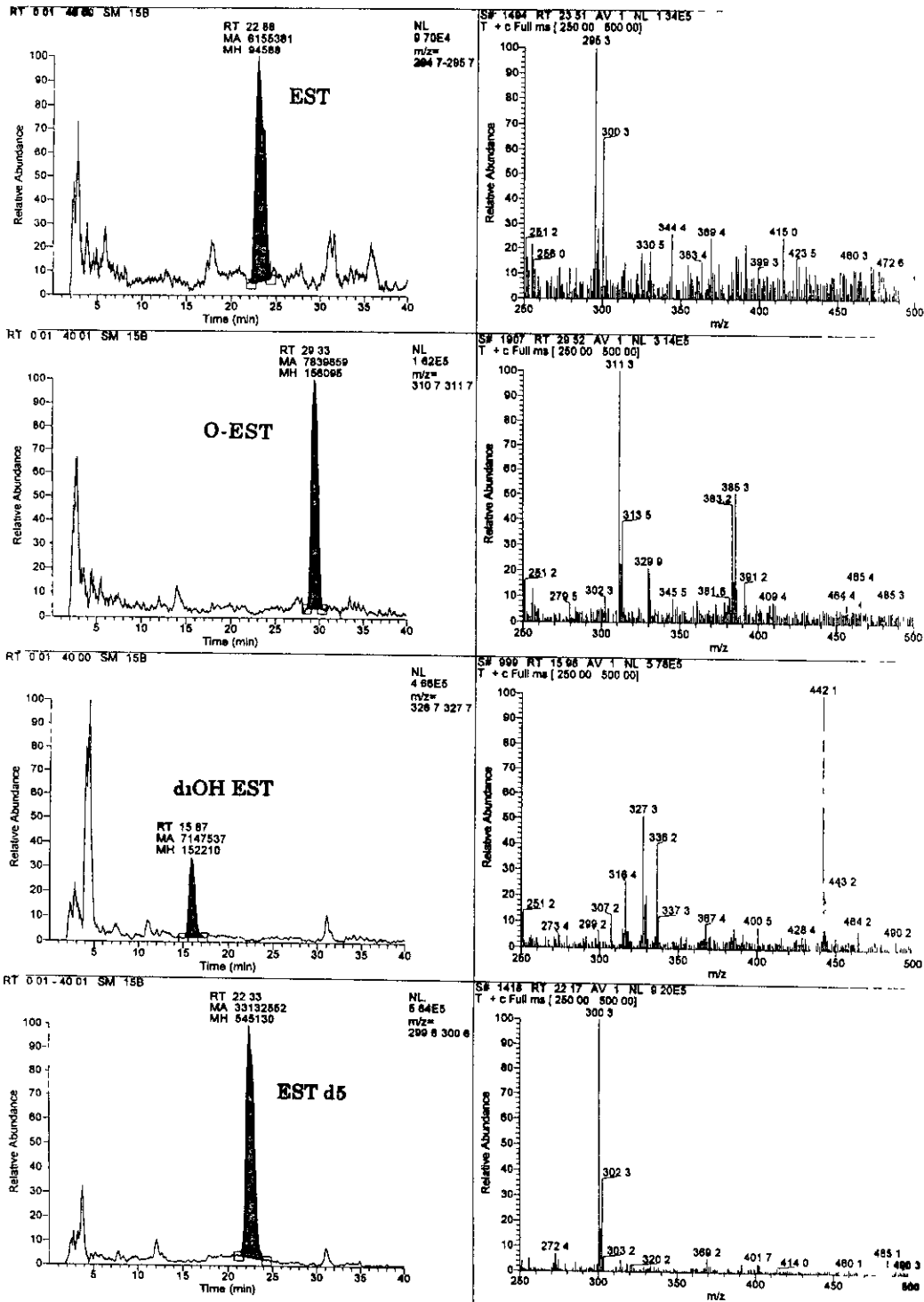


Fig.25 Typical mass chromatograms and mass spectra of EST and its metabolites in rat hair

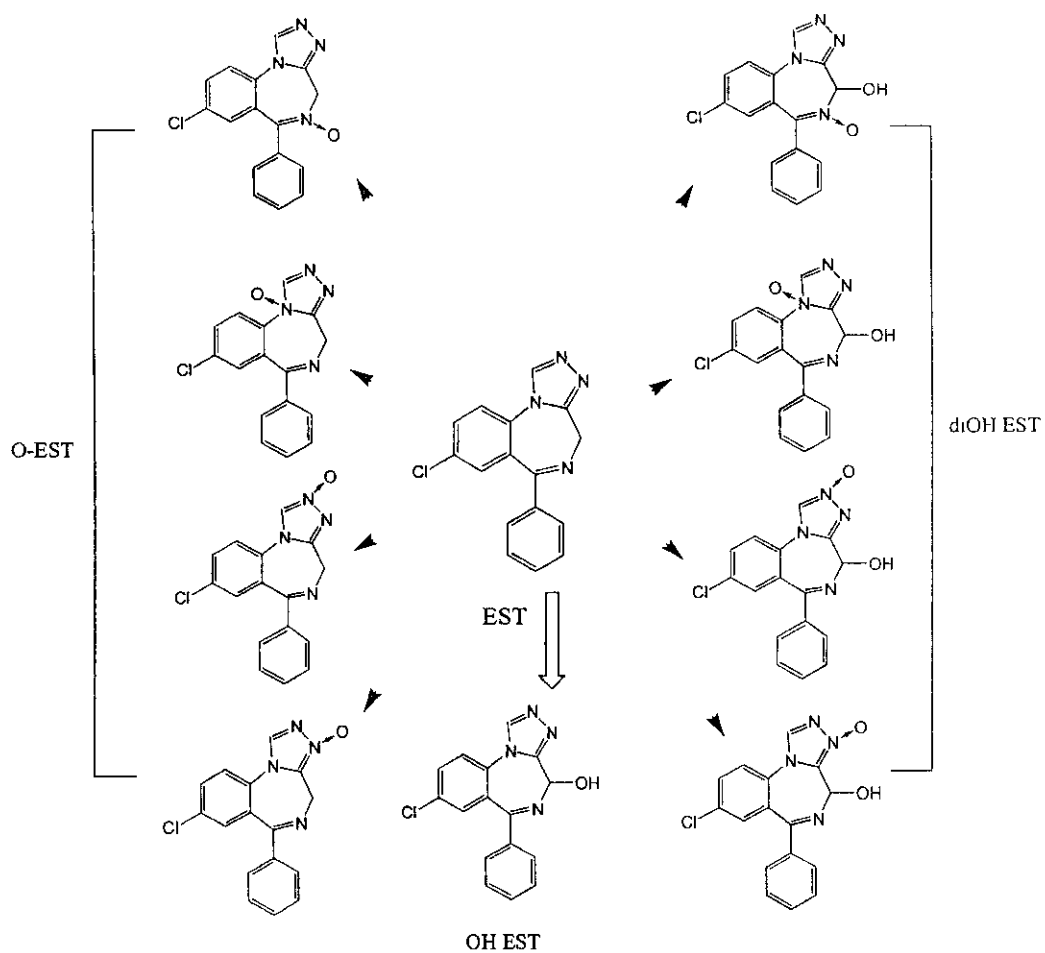


Fig 26 Possible metabolic pathways leading to estazolam

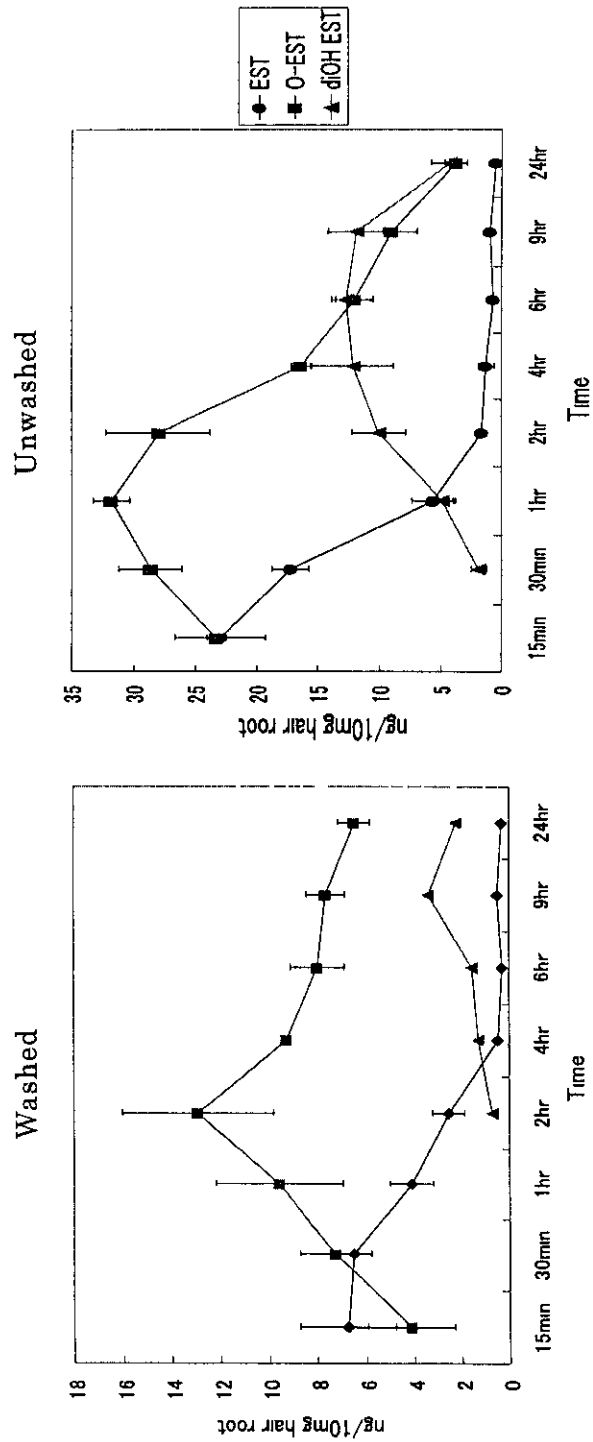


Fig.27 Time courses of EST and its metabolites in rat hair root (mean±S.D.,n=3)

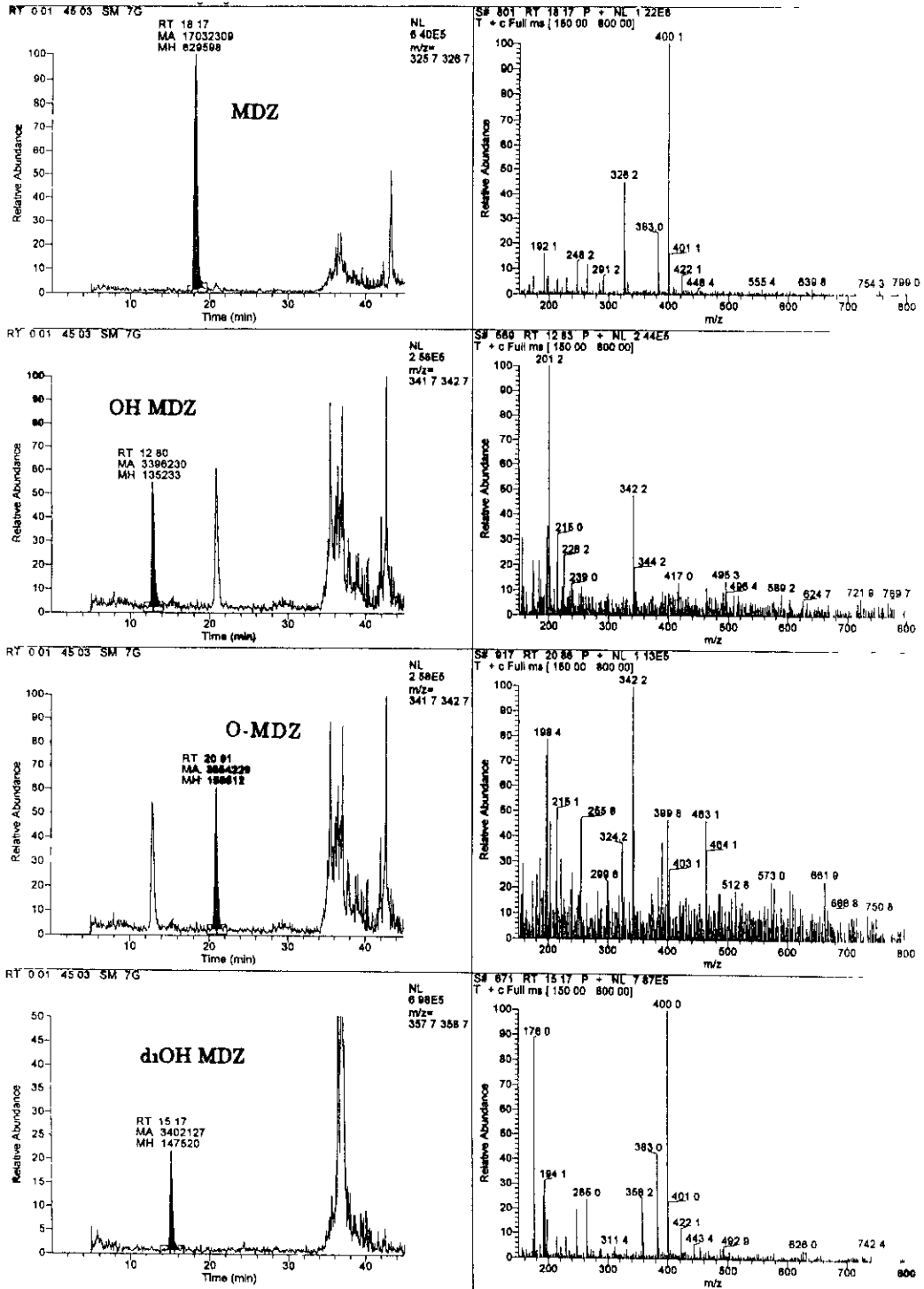


Fig 28 Typical mass chromatograms and mass spectra of MDZ and its metabolites in rat hair

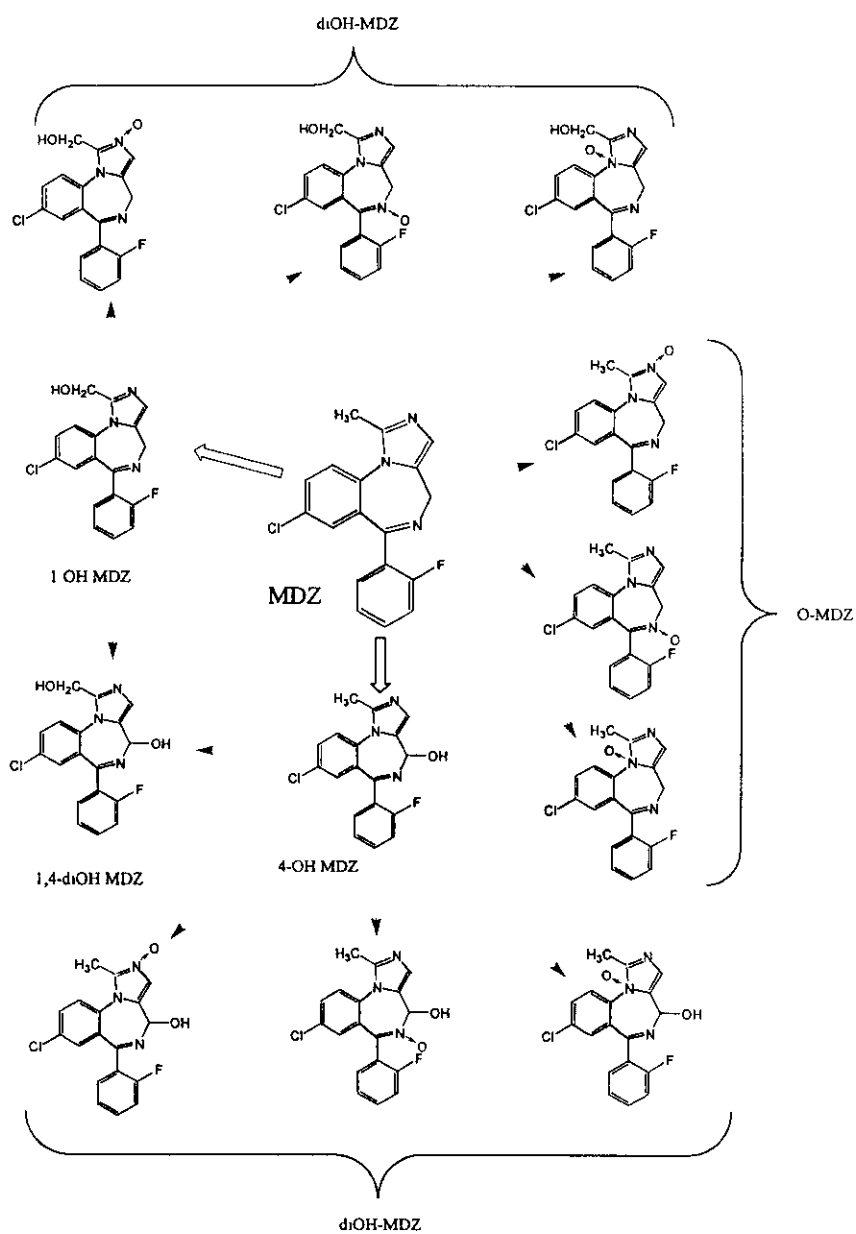


Fig 29 Possible metabolic pathways leading to midazolam

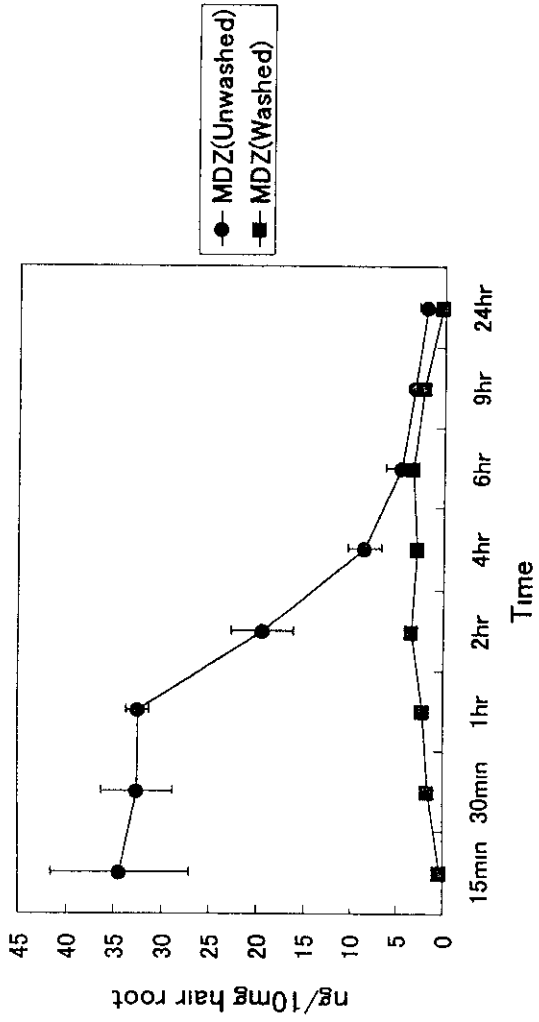


Fig 30 Time courses of MDZ and its metabolites in rat hair root (mean±S D , n=3)

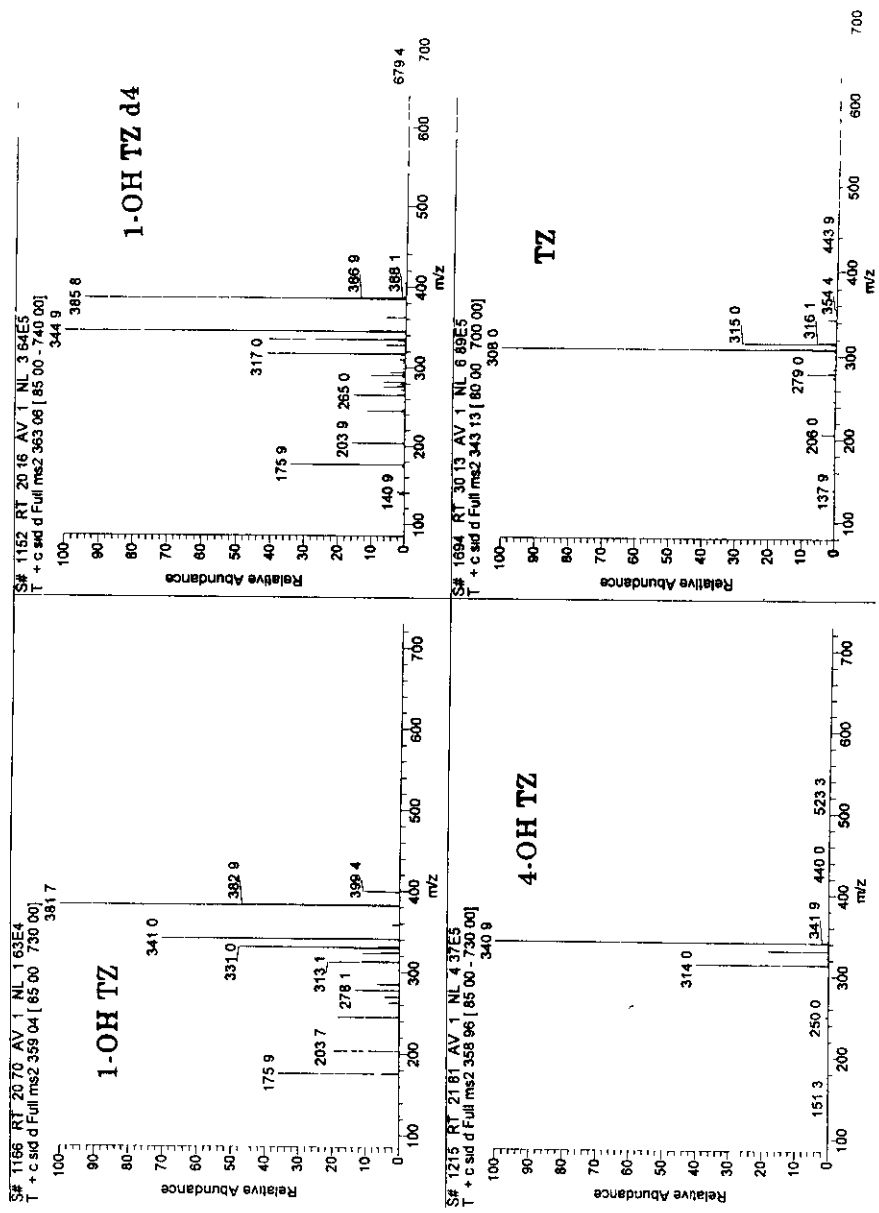


Fig 31 Mass spectra of TZ, 1-OH TZ and 4-OH TZ with MS/MS

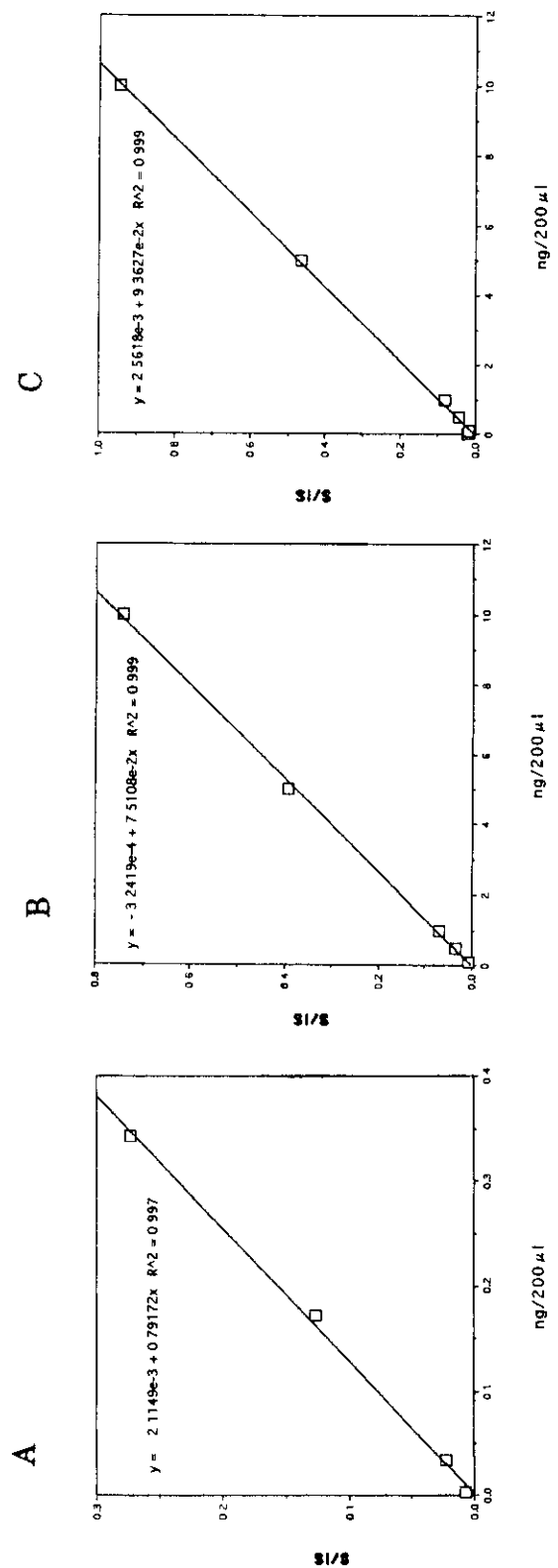


Fig 32 Calibration curves of TZ, 1-OH TZ and 4-OH TZ with MS/MS

A TZ, B 1-OH TZ, C 4-OH TZ, IS 1-OH TZ d4 (5ng/injection)