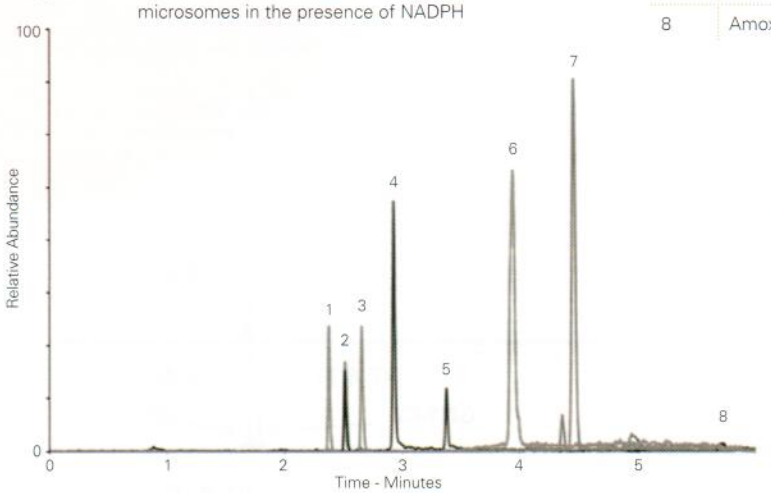
Amoxicillin Metabolites in Human Liver Microsomes

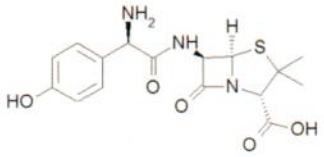
Application #AN4400

Conditions

Column: ACE 5 C18-300
Dimensions: 150 x 4.6 mm
Part Number: ACE-221-1546
Mobile Phase: 0.1% (v/v) formic acid in H_2O/MeCN (35:65 v/v)
Flow Rate: 0.4 mL/min
Injection: 15 µL
Temperature: 21 °C
Detection: Agilent 6410 triple quad MS
ESI in positive ion mode
Full scan MS and MS/MS data obtained
Sample: *In vitro* incubation of amoxicillin with human liver microsomes in the presence of NADPH

Peak	Analyte	$[M+H]^+$	Elemental Composition	Metabolic Reaction
1	M1	382	$C_{16}H_{20}N_3O_6S$	Hydroxylation
2	M2	379	$C_{17}H_{19}N_2O_7S$	Oxidative deamination
3	M3	382	$C_{16}H_{20}N_3O_6S$	Oxidation of aliphatic chain
4	M4	380	$C_{16}H_{18}N_3O_6S$	Oxidation of aliphatic chain
5	M5	396	$C_{16}H_{20}N_3O_7S$	Oxidation of aliphatic chain
6	M6	322	$C_{15}H_{19}N_3O_3S$	Decarboxylation
7	M7	542	$C_{25}H_{28}N_3O_{11}S$	Glucuronidation
8	Amoxicillin	366	$C_{16}H_{20}N_3O_5S$	





Amoxicillin

Szultka M, Krzeminski R, Jackowski M, Buszewski B. (2014) Identification of in vitro Metabolites of Amoxicillin in Human Liver Microsomes by LC-ESI/MS, Chromatographia, 77 , 1027-1035. doi 10.1007/s10337-014-2648-2