

# InertSearch™ for LC

Inertsil® Applications

## Simultaneous analysis of metabolites using LC/MS/MS (1) - amino acids and their related compounds -

Data No. LL011-0000

*The chromatograms were provided by Yudai Dempo, Takeshi Bamba, and Eiichiro Fukusaki, Department of Biotechnology, Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka 565-0871, Japan*

### Conditions

<b>Column</b>	: InertSustain C18 (3 $\mu$ m, 150 x 2.1 mm I.D., Metal-free hardware)
<b>Column Cat. No.</b>	: 5020-00541
<b>Eluent</b>	: A) 10 mM Tributylamine + 15 mM CH <sub>3</sub> COOH in H <sub>2</sub> O B) CH <sub>3</sub> OH
<b>Flow rate</b>	: 0.2 mL/min
<b>Col. Temp.</b>	: 45 °C
<b>Detection</b>	: LC/MS/MS (ESI, Negative, MRM)
<b>Injection Vol.</b>	: 3 $\mu$ L
<b>Sample</b>	: Standard solution (Approx. 5 $\mu$ mol/L each)

Time (min)	A (vol%)	B (vol%)
0	100	0
1	100	0
1.5	85	15
3	85	15
8	50	50
10	0	100
11	0	100
11.5	100	0
17	100	0

Analyte	Precursor ion (m/z)	Product ion (m/z)
Arginine	173	131
Lysine	145	99
Histidine	154	93
$\gamma$ -Aminobutyric acid	162	102
$\alpha$ -Aminobutyric acid	162	102
Serine	104	74
Asparagine	131	114
Glutamine	145	127
Threonine	118	74
Hydroxyproline	190	130
Cystine	239	120
Cysteine	120	33
Proline	174	114
Valine	176	116
Methionine	148	47
Tyrosine	180	163
Isoleucine	190	130
Leucine	190	130
Glutamic acid	146	102
Aspartic acid	132	88
Phenylalanine	164	103
Pyroglutamic acid	128	84
Tryptophan	203	116
Glutathione (oxidized form)	613	306

# InertSearch™ for LC

Inertsil® Applications

## Simultaneous analysis of metabolites using LC/MS/MS (1)

- amino acids and their related compounds -

