

HTS Autosampler

Extremely Low Carryover - Optimum for LC-MS!



High throughput

Six well plates

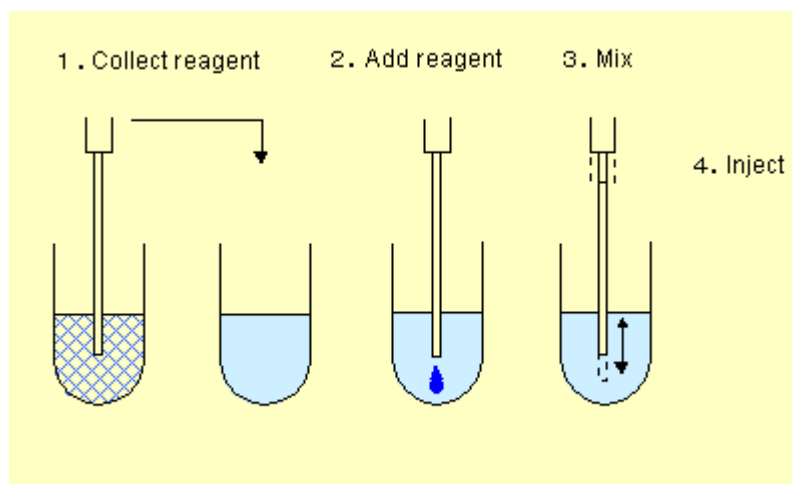


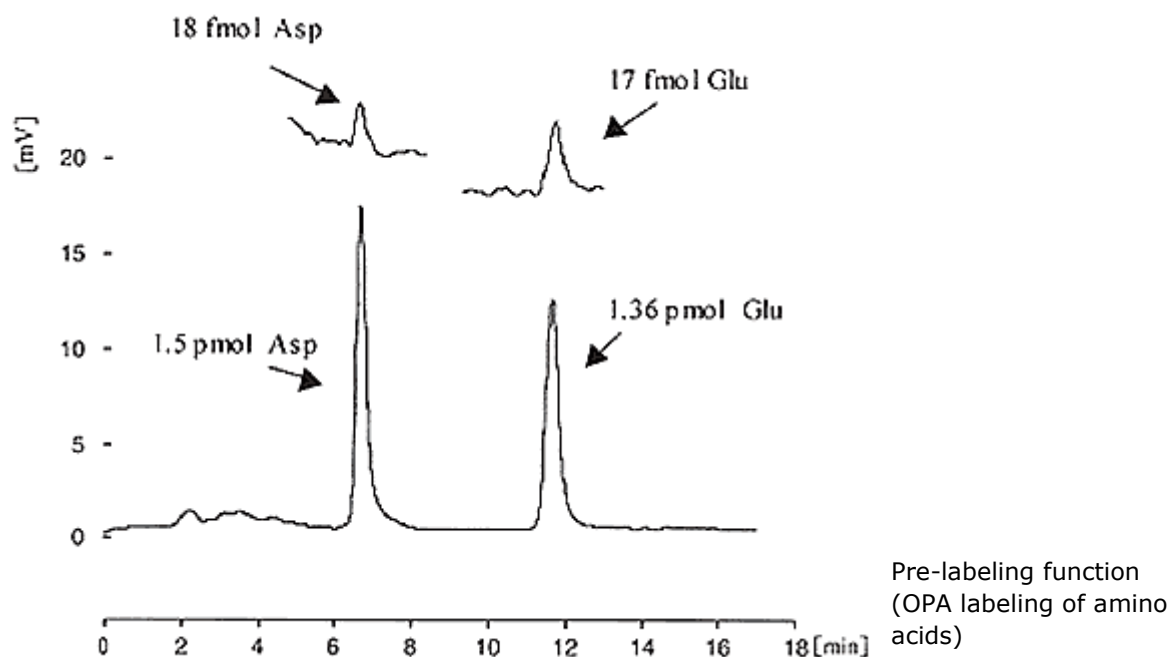
Less than one minute for one standard sample

Repetitive injection in one minute cycle including the rinsing process

Optimized for Biological Samples

Pre-column Labeling Function





Selection of Sample Vials

Vial Holder

- (1) 96-deep-well plate
- (2) Osaka Soda vial*
- (3) 96-well microplate

*Osaka Soda vials are available in 50 μ L and 250 μ L types.

Sample Cooling Function

The autosampler features a sample cooling function, useful for analysis of biological samples.

Metal-free Structure

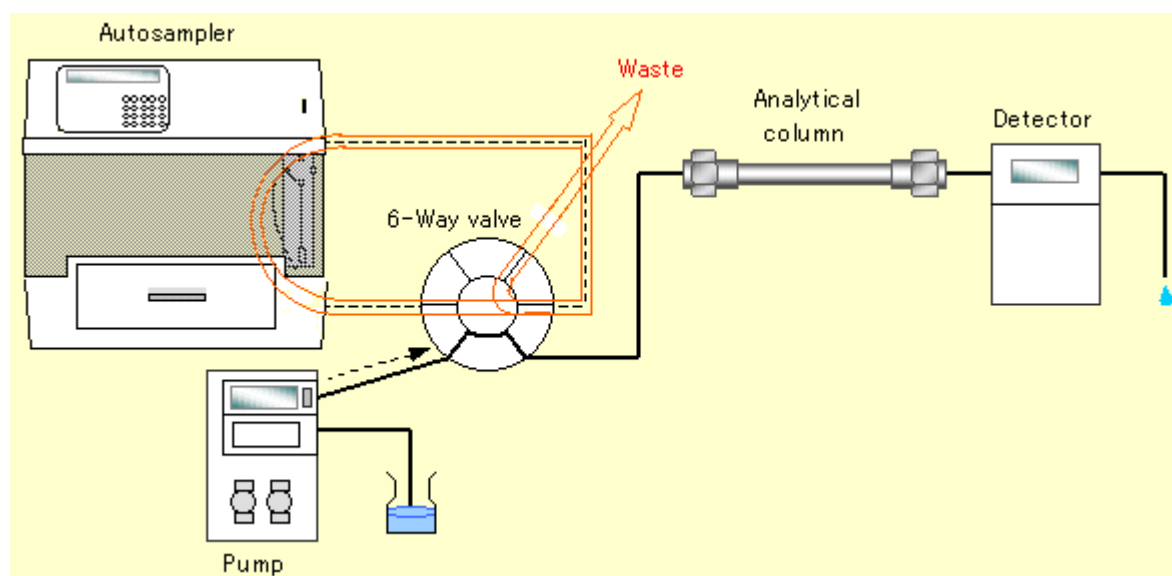
The flow channels are made of polyetheretherketone (PEEK) resin, allowing analysis of samples of strong adsorptive nature, such as proteins or other physiologically active samples.

Low Carryover

A complete rinsing system is adopted for the sampling mechanism to eliminate contamination and carryover.

Loop rinsing function

The sample loop and tubing in the autosampler are rinsed during analysis.



High-precision Analysis at High Sensitivity

Small Dead Volume Structure

The capacity of the injection valve has been reduced to 1.9 μL , virtually eliminating diffusion of the sample. Semi-microcolumns of 1.0-mm I.D. are also available.

Influence of dead volume on semi-microcolumn HPLC

Comparison of Peak Efficiency of Standard Compound (naphthalene) between Nanospace and Conventional Instrument (Retention time: 12 min)

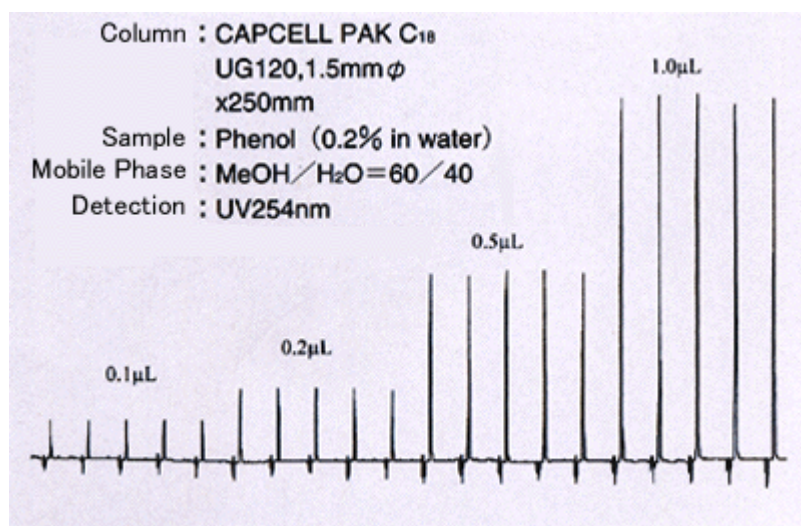
	Theoretical plate number
NANOSPACE SI-2 system with 0.065mm ϕ	20600
system with 0.13mm ϕ	17500
Semi - microcolumn compatible HPLC (Supplier A)	

Column : CAPCELL PAK C₁₈ UG120 S5 1.0mm ϕ x 250mm
 Sample : Naphthalene
 Mobile phase : Acetonitrile/Water = 55/45
 Flow rate : 50 $\mu\text{L}/\text{min}$
 Detection : UV 254 nm
 Injection volume : 2 μL

High Precision and Endurance

High precision is maintained even at small injection volumes (RSD less than 1% at 1 μL injection). A minute injection of 100 nL is also possible. The standard sampling volume ranges from 0.1 to 80.0 μL .

*Up to 400 μL injection can be made by using multiple collection function.



Efficient Sampling System

Polypropylene (PP) sample vials (50 μ L & 250 μ L) are suitable for biological samples. Valuable samples will not be wasted.

50 μ L vial: Minimum required sample volume = Injection volume + 2 μ L

Easy Operation with Key Pad

Programming is set by using the numerical key pad.

Networked System Control

Remote operation from a WindowsTM PC is possible.

Specifications

Product No.	3033
Product Name	HTS autosampler
System	Total injection system of variable sampling volume
Sample Injection Volume	0.1 to 400 μ L in 0.1 μ L increments
Injection Precision	RSD less than 1% at 1 μ L injection
Max. Sample Number	Microplate x 6, deep-well plate x 6, 50 & 250 μ L vials x 576, or 2mL vial x 144
Sample Cooling	4 to 20 $^{\circ}$ C (variable setting)
Power	AC 100 V \pm 10%, 50/60 Hz, 350 W
Dimensions	450(W) x 458(H) x 480(D) mm
Weight	About 36 kg
Rinsing Capability	Loop rinsing function