(Attachment)

Acrylamide copolymer bonded glycerylpropylsilanized silica gel cartridge (360 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 360 mg of acrylamide copolymer bonded glycerylpropylsilanized silica gel, or other cartridge with equal separation characteristics

Acetonitrile

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Acetone

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Aminopropylsilanized silica gel cartridge (360 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 360 mg of Aminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Aminopropylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of Aminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Aminopropylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of Aminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Aminopropylsilanized silica gel cartridge (light shielded, 1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter, wrapped with a light-shielding material, and packed with 1,000 mg of Aminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Basic alumina cartridge (1,710 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,710 mg of basic alumina, or other cartridge with equal separation characteristics

Acidic alumina cartridge (1,710 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,710 mg of acidic alumina, or other cartridge with equal separation characteristics

Acidic alumina cartridge (1,850 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,850 mg of acidic alumina, or other cartridge with equal separation characteristics

Neutral alumina cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of neutral alumina, or other cartridge with equal separation characteristics

Neutral alumina cartridge (1,710 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,710 mg of neutral alumina, or other cartridge with equal separation characteristics

Neutral alumina cartridge (1,850 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,850 mg of neutral alumina, or other cartridge with equal separation characteristics

Sodium sulfite

Sodium sulfite (special grade)

Potassium sulfite

Potassium sulfite (special grade)

Argon

Purity of 99.998 v/v% or higher

Isopropylether

Isopropylether (special grade)

Ethanol

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Ethylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of Ethylsilanized silica gel, or other cartridge with equal separation characteristics

3 mol/L Ethylmagnesiumbromide in ether solution

Ethylmagnesiumbromide (39% ethyl ether solution, and about 3 mol/L)

Ethylenediaminetriacetate (triacetic acid)-*N*-propylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of ethylenediaminetriacetate (triacetic acid)-*N*-propylsilanized silica gel, or other cartridge with equal separation characteristics

Ethylenediamine-*N*-propylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of ethylenediamine-*N*-propylsilanized silica gel, or other cartridge with equal separation characteristics

Ether

Diethyl ether. Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Ferrous chloride

Ferrous chloride (special grade)

Sodium chloride

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Guanidine hydrochloride

Guanidine hydrochloride (special grade)

Pyridine hydrochloride

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Octadecylsilanized silica gel cartridge (360 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 360 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (850 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 850 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (light shielded, 1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter, wrapped with a light-shielding material, and packed with 1,000 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (2,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 2,000 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Octadecylsilanized silica gel cartridge (5,000 mg)

A polyethylene tube of 19 mm in inside diameter packed with 5,000 mg of octadecylsilanized silica gel, or other cartridge with equal separation characteristics

Trimethyl-ortho-formate

Trimethyl-ortho-formate (first grade)

Trimethyl-ortho-acetate

Purity of 98% or higher

Sodium perchlorate

Sodium perchlorate (special grade)

Sodium peroxide

Sodium peroxide (special grade)

Active carbon

Active carbon (for chromatography)

Glass fiber filter paper

Glass fiber filter paper for chemical analysis

Basic alumina for column chromatography

Alumina made for column chromatography (basic, and 50-200 μm in particle diameter)

Neutral alumina for column chromatography

Alumina made for column chromatography (neutral, and 63-200 μm in particle diameter)

Synthetic magnesium silicate for column chromatography

Heat synthetic magnesium silicate made for column chromatography (150-250 μm in particle diameter) at 130°C for 12 hours or longer, and allow to cool in a desiccator.

Silica gel for column chromatography (63-200 μm in particle diameter)

Heat silica gel made for column chromatography (63-200 μm in particle diameter) at 130°C for 12 hours or longer, and allow to cool in a desiccator.

Silica gel for column chromatography (150-425 μm in particle diameter)

Heat silica gel made for column chromatography (150-425 μm in particle diameter) at 130°C for 12 hours or longer, and allow to cool in a desiccator.

Hydroxypropylnized dextran for column chromatography

Use dextran bound hydroxypropyl group made for column chromatography (25-100 μm in particle diameter).

Column carrier

Perform acid treatment and silane finish on diatomaceous earth made for gas chromatography (150-177 μm in particle diameter).

Carboxyethylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 10-12 mm in inside diameter packed with 1,000 mg of carboxymethylsilanized silica gel, or other cartridge with equal separation characteristics

Carboxydivinylbenzene-*N*-vinylpyrrolidone copolymer cartridge (150 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 150 mg of Carboxydivinylbenzene-N-vinylpyrrolidone copolymer, or other cartridge with equal separation characteristics

Carboxymethyl-bonded weakly acidic cation-exchange resin cartridge (250 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 250 mg of Carboxymethyl-bonded weakly acidic cation-exchange resin, or other cartridge with equal separation characteristics

Strongly basic anion-exchange resin

Wash twice strongly basic anion-exchange resin made for column chromatography with 1 mol/L hydrochloric acid which volume is five times of the resin, and wash the washing with water until the pH of the washing becomes neutral. Wash twice with 1 mol/L sodium hydroxide solution which volume is five times of the washing, wash with water until the pH of the washing becomes neutral, suspend in water, and store in cool and dark place.

Strongly basic anion-exchange resin cartridge (150 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 150 mg of strongly basic anion-exchange resin, or other cartridge with equal separation characteristics

Strongly basic anion-exchanger cartridge (360 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 360 mg of strongly basic anion-exchanger, or other cartridge with equal separation characteristics

Strongly acidic cation-exchange resin

Wash twice strongly acidic cation-exchange resin made for column chromatography (75-150 μm in particle diameter) with 1 mol/L sodium hydroxide solution which volume is five times of the resin, and wash the washing with water until the pH of the washing becomes neutral. Wash twice with 3 mol/L hydrochloric acid which volume is five times of the washing, wash with water until the pH of the washing becomes neutral, suspend in water, and store in cool and dark place.

Strongly acidic cation-exchanger cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of propyl benzene sulfonatesilanized silica gel (benzenesulfonylpropylsilanized silica gel), or other cartridge with equal separation characteristics

Ammonium citrate

Ammonium citrate (dibasic) (special grade)

Tripotassium citrate

Tripotassium citrate (special grade)

Graphite carbon cartridge (250 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 250 mg of graphite carbon, or other cartridge with equal separation characteristics

Graphite carbon cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of graphite carbon, or other cartridge with equal separation characteristics

Graphite carbon cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of graphite carbon, or other cartridge with equal separation characteristics

Graphite carbon/aminopropylsilanized silica gel layered cartridge (500 mg/500 mg)

A polyethylene tube of 12–13 mm in inside diameter packed with 500 mg of graphite carbon in the upper layer and 500 mg of aminopropylsilanized silica gel in the lower layer, or other cartridge with equal separation characteristics

Glycerylpropylsilanized silica gel cartridge (360 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 360 mg of glycerylpropylsilanized silica gel, or other cartridge with equal separation characteristics

β-Glucosidase

Requires the activity to liberate 4-12 μmol/min of glucose from salicin at pH 5.0 at 37°C per 1 mg of salicin.

***m*-Chloroperbenzoic acid**

Purity of 70% or higher

Chloroform

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Diatomaceous earth

Diatomaceous earth for chemical analysis

High purity nitrogen

Purity of 99.999 v/v% or higher

Synthetic magnesium silicate cartridge (900 mg or 910 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 900 mg or 910 mg of synthetic magnesium silicate, or other cartridge with equal separation characteristics

Synthetic zeolite

Synthetic zeolite of 0.3 nm in micropore diameter

Ammonium acetate

Purity of 97% or higher

Ethyl acetate

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Borontrifluoride etherate complex

Purity of 99% or higher

Diethylene glycol

Purity of 98% or higher

Diethylene glycol monoethyl ether

Purity of 99% or higher

Cyclohexylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of cyclohexylsilanized silica gel, or other cartridge with equal separation characteristics

Cyclohexylsilanized silica gel cartridge (light shielded, 1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter, wrapped with a light-shielding material, and packed with 1,000 mg of cyclohexylsilanized silica gel, or other cartridge with equal separation characteristics

Cyclohexylsilanized silica gel cartridge (2,000 mg)

A polyethylene tube of 15-16 mm in inside diameter packed with 2,000 mg of cyclohexylsilanized silica gel, or other cartridge with equal separation characteristics

Cyclohexylsilanized silica gel cartridge (light shielded, 2,000 mg)

A polyethylene tube of 15-16 mm in inside diameter, wrapped with a light-shielding material, and packed with 2,000 mg of cyclohexylsilanized silica gel, or other cartridge with equal separation characteristics

Dichloromethane

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Dichloromethane (Special Grade)

Dichloromethane (special grade)

Dichlorodimethylsilane

Purity of 98% or higher

Divinylbenzene-*N*-vinylpyrrolidone copolymer cartridge (60 mg)

A polyethylene tube of 8-13 mm in inside diameter packed with 60 mg of Divinylbenzene-N-vinylpyrrolidone copolymer, or other cartridge with equal separation characteristics

Divinylbenzene-*N*-vinylpyrrolidone copolymer cartridge (200 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 200 mg of Divinylbenzene-N-vinylpyrrolidone copolymer, or other cartridge with equal separation characteristics

Divinylbenzene-*N*-vinylpyrrolidone copolymer cartridge (500 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 500 mg of Divinylbenzene-N-vinylpyrrolidone copolymer, or other cartridge with equal separation characteristics

Dibutylhydroxytoluene

Dibutylhydroxytoluene (special grade)

***p*-Dimethylaminobenzaldehyde**

p-Dimethylaminobenzaldehyde (special grade)

Weakly basic anion-exchanger cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of diethylaminopropylanized weakly basic anion-exchanger, or other cartridge with equal separation characteristics

Weakly acidic cation-exchange resin

Wash weakly acidic cation-exchange resin made for column chromatography with 1 mol/L hydrochloric acid, and wash with 2.8% ammonia water. Wash with 1 mol/L hydrochloric acid, wash with water until the pH of the washing becomes neutral.

Defoaming silicone

Silicon made for defoaming

Silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of silica gel, or other cartridge with equal separation characteristics

Silica gel cartridge (690 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 690 mg of silica gel, or other cartridge with equal separation characteristics

Silica gel cartridge (light shielded, 690 mg)

A polyethylene tube of 8-9 mm in inside diameter, wrapped with a light-shielding material, and packed with 690 mg of silica gel, or other cartridge with equal separation characteristics

Silica gel cartridge (800 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 800 mg of silica gel, or other cartridge with equal separation characteristics

Silica gel cartridge (1,000 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,000 mg of silica gel, or other cartridge with equal separation characteristics

Sodium borohydride

Purity of 98% or higher

Styrene-divinylbenzene copolymer column

A stainless tube of 20 mm in inside diameter and 300 mm in length packed with styrene-divinylbenzene copolymer prepared for gel permeation chromatography, or a column equivalent to the specified one in separation capability

Styrene-divinylbenzene copolymer adsorbent

Wash styrene-divinylbenzene copolymer (non-polar, 250-600 μm in particle diameter, 30 nm in mean pore diameter), or other cartridge with equal separation characteristics

Styrene-divinylbenzene copolymer cartridge (265 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 265 mg of styrene-divinylbenzene copolymer, or other cartridge with equal separation characteristics

Styrene-divinylbenzene copolymer cartridge (500 mg)

A polyethylene tube of 8-13 mm in inside diameter packed with 500 mg of styrene-divinylbenzene copolymer, or other cartridge with equal separation characteristics

Sulfamic acid

Sulfamic acid (special grade)

Cellulase

Requires the activity to liberate 29 μmol/min of glucose from cellulose at pH 5.0 at 37°C per 1 mg of cellulase.

Porous diatomaceous earth column (5 mL holding capacity)

A polyethylene tube of 19-20 mm in inside diameter packed with granular porous diatomaceous earth prepared for column chromatography (5 mL holding capacity), or a column equivalent to the specified one in separation capability.

Porous diatomaceous earth column (20 mL holding capacity)

A polyethylene tube of 20-30 mm in inside diameter packed with granular porous diatomaceous earth prepared for column chromatography (20 mL holding capacity), or a column equivalent to the specified one in separation capability

Porous diatomaceous earth column (50 mL holding capacity)

A polyethylene tube of about 40 mm in inside diameter packed with granular porous diatomaceous earth prepared for column chromatography (50 mL holding capacity), or a column equivalent to the specified one in separation capability

Tetrahydrofuran

Tetrahydrofuran (special grade)

Sodium dodecyl sulfate

Purity of 85% or higher

Triethylamine

Triethylamine (special grade)

Trisodium pentacyanoamine ferroate

Trisodium pentacyanoamine ferroate (special grade)

2,2,2-Trifluoroethanol

2,2,2-Trifluoroethanol (special grade)

Trimethylaminopropylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of Trimethylaminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Trimethylaminopropylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 1,000 mg of trimethylaminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Trimethylaminopropylsilanized silica gel cartridge (5,000 mg)

A polyethylene tube of 19-20 mm in inside diameter packed with 5,000 mg of trimethylaminopropylsilanized silica gel, or other cartridge with equal separation characteristics

Trimethylaminopropylsilanized silica gel/benzenesulfonic- propyl silanized silica gel mixture cartridge (200 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 200 mg of a mixture of trimethylaminopropylsilanized silica gel and benzenesulfonic-propyl silanized silica gel, or other cartridge with equal separation characteristics

Trimethylaminopropylsilanized silica gel/benzenesulfonic- propyl silanized silica gel mixture cartridge (600 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 600 mg of a mixture of trimethylaminopropylsilanized silica gel and benzenesulfonic-propyl silanized silica gel, or other cartridge with equal separation characteristics

Sodium benzenthiolate

Purity of 98% or higher

***o*-Nitrobenzaldehyde**

o-Nitrobenzaldehyde (special grade)

Lactic acid

Lactic acid (special grade)

Hydroxypropylnized dextran

Use dextran bound hydroxypropyl group made for column chromatography (25-100 μm in particle diameter).

Phenolphthalein test solution

Dissolve 1 g of phenolphthalein in 100 mL of ethanol.

***o*-Phthalaldehyde**

Purity of 99% or higher

Potassium fluoride

Potassium fluoride (special grade)

Propylsulphonylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 500 mg of propylsulphonylsilanized silica gel, or other cartridge with equal separation characteristics

Propylsulphonylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 12-13 mm in inside diameter packed with 1,000 mg of propylsulphonylsilanized silica gel, or other cartridge with equal separation characteristics

Fluorescamine

Purity of 98% or higher

9-Fluorenylmethylchloroformate

9-Fluorenylmethylchloroformate (special grade)

***n*-Hexane**

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Heptafluorobutyric acid

Heptafluoro-*n*-butyric acid

Sodium heptansulfonate

Sodium 1-heptansulfonate (special grade)

Potassium peroxodisulfate

Potassium peroxodisulfate (first grade)

Benzenesulfonylpropylsilanized silica gel cartridge (500 mg)

A polyethylene tube of 8-9 mm in inside diameter packed with 500 mg of benzenesulfonylpropylsilanized silica gel, or other cartridge with equal separation characteristics

Benzenesulfonylpropylsilanized silica gel cartridge (1,000 mg)

A polyethylene tube of 8-13 mm in inside diameter packed with 1,000 mg of benzenesulfonylpropylsilanized silica gel, or other cartridge with equal separation characteristics

3-Pentanone

3-Pentanone (special grade)

***n*-Pentane**

Purity of 99% or higher

Water

Use water suitable for chemical analysis, including distilled water, purified water, or pure water. If it contains any substance that may interfere with analysis of the target compound, wash with a solvent such as n-hexane before use.

Chloroacetic anhydride

Purity of 99% or higher

Fluoroacetic anhydride

Purity of 99% or higher

Anhydrous sodium sulfate

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Methanol

Use a reagent not containing any substance that may interfere with the analysis of the target compound.

Methylisobutylketone

Methylisobutylketone (special grade)

1-Methylimidazole

Purity of 99% or higher

Methyl orange test solution

Dissolve 0.1 g of Methyl orange in 100 mL of water.

***N*-Methyl-*N*-nitroso-*p*-toluenesulfonamide**

Purity of 98% or higher

***N*-Methylbistrifluoroacetamide**

Purity of 95% or higher

2-Mercaptoethanol

Purity of 99% or higher

3-Mercaptopropionic acid

Purity of 98% or higher

Monoethanolamine

Monoethanolamine (special grade)

Molecular sieves

Naturally occurring alkali metal sodium silicate or alkaline earth sodium silicate

Potassium iodide starch paper

Potassium iodide starch paper

Iodotrimethylsilane

Purity of 95% or higher

Sodium tetraborate

Sodium tetraborate (special grade)

Sodium lauryl sulfate

Sodium lauryl sulfate (special grade)

Monopotassium hydrogen phosphate

Monopotassium hydrogen phosphate (special grade)

Dipotassium hydrogen phosphate

Dipotassium hydrogen phosphate (special grade)

Tetra-*n*-butylammonium phosphate

Tetra-*n*-butylammonium phosphate (special grade)