YMC Co., Ltd.
Quality Assurance Dept.

Prepared on July 31, 2014

Comparison table of inspection analysis conditions

Product	Item	Previous conditions	**New conditions**
YMC-Pack C8, ODS-A, ODS-AQ, ODS-AM ODS-AL (2.1 mmI.D. or less)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
YMC-Pack C8, ODS-A, ODS-AQ, ODS-AM ODS-AL (3.0 mmI.D. or more)	Peak asymmetry	As	**Tf**
	Eluent	Methanol/Water (70/30, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Methyl benzoate 3. Toluene 4. Naphthalene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Methanol/Water (70/30, v/v)	**Acetonitrile/Water (60/40, v/v)**
YMC-Pack *Pro* C18, *Pro* C8, *Pro* C4, *Pro* C18 RS, Hydrosphere C18 (2.1 mmI.D. or less)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Naphthalene 4. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
YMC-Pack *Pro* C18, *Pro* C8, *Pro* C4, *Pro* C18 RS, Hydrosphere C18 (3.0 mmI.D. or more)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Methyl benzoate 3. Naphthalene 4. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
YMC-Pack C4 (2.1 mmI.D. or less)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
YMC-Pack C4 (3.0 mmI.D. or more)	Peak asymmetry	As	**Tf**
	Eluent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Methyl benzoate 3. Toluene 4. Naphthalene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
YMC-Pack TMS, CN (2.1 mmI.D. or less)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**

Comparison table of inspection analysis conditions

Product	Item	Previous conditions	**New conditions**
YMC-Pack TMS, CN (3.0 mmI.D. or more)	Peak asymmetry	As	**Tf**
	Eluent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Methyl benzoate 3. Toluene 4. Naphthalene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
YMC-Pack PolymerC18	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	30℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	Acetonitrile/Water (60/40, v/v)
YMC-Pack NH2, PA-G, Polyamine II	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (75/25, v/v)	Acetonitrile/Water (75/25, v/v)
	Detection	RI	RI
	Temperature	25℃	25℃
	Sample	0. (Water) 1. Fructose 2. Glucose 3. Sucrose 4. Maltose 5. Lactose	**0. (Water)** **1. Fructose** **2. Sucrose**
	Shipping solvent	Acetonitrile/Water (75/25, v/v)	Acetonitrile/Water (75/25, v/v)
YMC-Pack Ph (2.1 mmI.D. or less)	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
YMC-Pack Ph (3.0 mmI.D. or more)	Peak asymmetry	As	**Tf**
	Eluent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Methyl benzoate 3. Toluene 4. Naphthalene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Methanol/Water (60/40, v/v)	**Acetonitrile/Water (50/50, v/v)**

Comparison table of inspection analysis conditions

Product	Item	Previous conditions	**New conditions**
J'sphere ODS series	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 270 nm	**UV at 254 nm**
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Methyl benzoate 3. Progesterone 4. Butyl benzoate	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile	Acetonitrile
YMC Carotenoid	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (70/30, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Acetone 2. Acenaphthene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile	Acetonitrile
YMCbasic	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (60/40, v/v)	**Acetonitrile/Water (60/40, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	Ambient	Ambient
	Sample	1. Uracil 2. Anthracene	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile	Acetonitrile
YMC-Pack PROTEIN-RP	Peak asymmetry	As	**Tf**
	Eluent	Acetonitrile/Water (40/60, v/v)	**Acetonitrile/Water (50/50, v/v)**
	Detection	UV at 254 nm	UV at 254 nm
	Temperature	37℃	**Ambient**
	Sample	1. Uracil 2. Benzene 3. Naphthalene 4. Biphenyl	**1. Uracil** **2. Methyl benzoate** **3. Naphthalene**
	Shipping solvent	Acetonitrile/Water (40/60, v/v)	**Acetonitrile/Water (50/50, v/v)**

Peak asymmetry

As, As=b/a, a:The first half of the peak at 10% peak height, b:The second half of the peak at 10% peak height.

Tf, $Tf=W_{0.05h}/2f$, $W_{0.05h}$:The width of the peak at 5% peak height, f:The first half of the peak at 5% peak height.