

LABORATORIES GROUP

Requirement Specifications

Supply And Delivery of Analytical Liquid Chromatography (LC) Columns for Laboratory Use				
Item	Quantity	Product Requirement	Unit Price S\$ (exclude GST)	Total Price S\$ (exclude GST)
1	2 nos.	HILIC Column (4.6mm ID x 150mm) - Particle size: 2.6 µm - Suitable for analysis of 4-Methylimidazole in sauces Note: Supplier quoting for Item 1 must also quote for Item 2 and 3. Item 1, 2 and 3 are purchased as a set of the same series, and they will be awarded to the same supplier.	1,435.00	1,435.00
2	12 nos.	HILIC Guard column for use with Items 1 and 3 - Particle size: 2.6 µm - Must be compatible for use with Items 1 and 3 Note: Supplier quoting for Item 2 must also quote for Item 1 and 3. Item 1, 2 and 3 are purchased as a set of the same series, and they will be awarded to the same supplier.	700.00	4,200.00
3	2 nos.	Guard Cartridge Holder for use with item 1 and 2 Must be compatible for use with item 1 and 2 Note: Supplier quoting for Item 3 must also quote for Item 1 and 2. Item 1, 2 and 3 are purchased as a set of the same series, and they will be awarded to the same supplier.	260.00	260.00
4	2 nos.	HILIC Column (2.1mm ID x 150mm) - Particle size: 2.6 µm - Suitable for analysis of 4-Methylimidazole in sauces Note: Supplier quoting for Item 4 must also quote for Item 5 and 6. Item 4, 5 and 6 are purchased as a set of the same series, and they will be awarded to the same supplier.	1,435.00	1,435.00
5	12 nos.	HILIC Guard column for use with Items 4 and 6 - Particle size: 2.6 µm - Must be compatible for use with Items 4 and 6 Note: Supplier quoting for Item 5 must also quote for Item 4 and 6. Item 4, 5 and 6 are purchased as a set of the same series, and they will be awarded to the same supplier.	700.00	4,200.00
6	2 nos.	Guard Cartridge Holder for use with item 4 and 5 Must be compatible for use with item 4 and 5 Note: Supplier quoting for Item 6 must also quote for Item 4 and 5. Item 4, 5 and 6 are purchased as a set of	260.00	260.00

		the same series, and they will be awarded to the same supplier.		
7	2 nos.	Hydroxide-selective Anion-Exchange column (2mm ID x 250mm) • Particle size: 13 µm • Crosslinking: 55%DVB • pH stability : 0 - 14 • Capacity : 11 µeq • Pore size : < 10 Å • Bonded group: Alkanol quaternary ammonium ion • Packing type: Polyethylvinylbenzene/Divinylbenzene • Maximum pressure : 4000psi • Dionex IonPac AS11 (P/N: 044077) or equivalent • Equivalent column must be equal or better in performance than Dionex IonPac AS11 (P/N: 044077) Note: Supplier quoting for Item 7 must also quote for Item 8. Item 7 and 8 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
8	4 nos.	Microbore guard cartridge for use with Item 7 • Dionex IonPac AG11 (P/N: 044079) or equivalent • Equivalent guard cartridge must be equal or better in performance than Dionex IonPac AG11 (P/N: 044079) • Must be compatible for use with Item 7 Note: Supplier quoting for Item 8 must also quote for Item 7. Item 7 and 8 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
9	2 nos.	Hydroxide-selective Anion-Exchange column (2mm ID x 250mm) • Particle size: 9 µm • Crosslinking: 55%DVB • pH stability : 0 - 14 • Capacity : 72.5 µeq • Pore size : 2000 Å • Bonded group: Alkanol quaternary ammonium ion • Packing type: Polyethylvinylbenzene/Divinylbenzene • Maximum pressure : 4000psi • Dionex IonPac AS11-HC (P/N: 052961) or equivalent • Equivalent column must be equal or better in performance than Dionex IonPac AS11-HC (P/N: 052961) Note: Supplier quoting for Item 9 must also quote for Item 10. Item 9 and 10 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	

10	4 nos.	Microbore guard cartridge for use with Item 9 - Dionex IonPac AG11-HC (P/N: 052963) or equivalent Equivalent guard cartridge must be equal or better in performance than Dionex IonPac AG11-HC (P/N: 052963) - Must be compatible for use with Item 9 Note: Supplier quoting for Item 10 must also quote for Item 9. Item 9 and 10 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
11	4 nos.	Reversed Phase LC column (2.1mm ID X 100mm) - Particle size: 5 µm - Carbon load : 100% - pH stability : 0 - 14 - Surface area : 120 m²/g - Pore size : 250 Å - Stationary phase: Porous graphitic carbon - Packing type : Spherical, porous graphitic carbon - Maximum pressure : 400bar - Phase type : For reversed phase chromatography - Hypercarb column (P/N: 35005-102130) or equivalent - Equivalent column must be equal or better in performance than Hypercarb column (P/N: 35005-102130) Note: Supplier quoting for Item 11 must also quote for Item 12 and 13. Item 11, 12 and 13 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
12	8 nos.	Guard cartridge for use with Items 11 and 13 - Particle size 5 µm - Carbon load : 100% - pH stability : 0 - 14 - Maximum pressure : 400bar - Pore size : 250 Å - Surface area : 120 m²/g - Hypercarb Guard (P/N: 35005-012101) or equivalent - Equivalent guard cartridge must be equal or better in performance than Hypercarb Guard (P/N: 35005-012101) - Must be compatible for use with Items 11 and 13 Note: Supplier quoting for Item 12 must also quote for Item 11 and 13. Item 11, 12 and 13 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	

13	4 nos.	Guard Cartridge Holder for use with Items 11 and 12 - Stainless steel - Reusable - Able to connect directly to analytical column inlet - For use with analytical column with 2.1mm and 3mm (ID) - UNIGUARD Direc-Connect Drop-in Guard Cartridge Holder (P/N: 852-00) - Equivalent guard cartridge holder must be equal or better in performance than UNIGUARD Direc-Connect Drop-in Guard Cartridge Holder (P/N: 852-00) - Must be compatible for use with Items 11 & 12 Note: Supplier quoting for Item 13 must also quote for Item 11 and 12. Item 11, 12 and 13 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
14	4 nos.	Guard cartridge (3mm ID X 10mm) for Reversed Phase LC column - Particle size 5 µm - Hypercarb Guard (P/N: 35005-013001) or equivalent - Equivalent guard cartridge must be equal or better in performance than Hypercarb Guard (P/N: 35005-013001) - Must be compatible for use with Hypercarb column (P/N: 35005-103030)	N/A	
15	2 nos.	Mixed Mode LC column (2.1mm ID X 150mm) - Particle size: 5 µm - Pore size : 100 Å - Packing type : Silica - SIELC Obelisc R (P/N: OR-21.150.0510) or equivalent - Equivalent column must be equal or better in performance than SIELC Obelisc R (P/N: OR-21.150.0510) Note: Supplier quoting for Item 15 must also quote for Item 16. Item 15 and 16 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
16	4 nos.	Guard column for use with Item 15 - Particle size 5 µm - Pore size : 100 Å - Obelisc R (P/N: OR-21.G.0510) or equivalent - Equivalent guard column must be equal or better in performance than Obelisc R (P/N: OR-21.G.0510) - Must be compatible for use with Item 15 Note: Supplier quoting for Item 16 must also quote for Item 15. Item 15 and 16 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	

17	2 nos.	LC column (2mm ID X 100mm) - Particle size: 5 µm - Pore size : 110 Å - Bonded phase : Flourinated phenyl - MonoChrom MS (P/N: A2080100X020) or equivalent - Equivalent column must be equal or better in performance than MonoChrom MS (P/N: A2080100X020) Note: Supplier quoting for Item 17 must also quote for Item 18. Item 17 and 18 are purchased as a set of the same series, and they will be awarded to the same supplier.	1,254.00	1,254.00
18	6 nos.	Guard column for use with Item 17 - Disposable - Single-piece unit - Able to connect directly to analytical column inlet - Particle size: 5 µm - For use with analytical column with 2mm (ID) - MetaGuard guard column (P/N: A2080MG2) or equivalent - Equivalent guard cartridge must be equal or better in performance than MetaGuard guard column (P/N: A2080MG2) - Must be compatible for use with Item 17 Note: Supplier quoting for Item 18 must also quote for Item 17. Item 17 and 18 are purchased as a set of the same series, and they will be awarded to the same supplier.	729.00	2,187.00
19	2 nos.	Mixed Mode LC column (2.1mm ID X 100mm) - Particle size: 3 µm - pH stability : 2.5 - 7 - Surface area : 100 m²/g - Pore size : 300 Å - Stationary phase: Reversed phase/Anion exchange/Cation exchange - Packing type : Spherical, nonpolymer silica hybrid - Maximum pressure : 4500psi - Dionex Acclaim Trinity P1 (P/N: 071389) or equivalent - Equivalent column must be equal or better in performance than Dionex Acclaim Trinity P1 (P/N: 071389) Note : Supplier quoting for Item 19 must also quote for Item 20 and 21. Item 19, 20 and 21 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	

20	4 nos.	Guard cartridge for use with Items 19 and 21 - Particle size : 3 µm - pH stability : 2.5 - 7 - Maximum pressure : 4500psi - Pore size : 300 Å - Surface area : 100 m²/g - Dionex Acclaim Trinity P1 (P/N: 071391) or equivalent - Equivalent guard cartridge must be equal or better in performance than Dionex Acclaim Trinity P1 (P/N: 071391) - Must be compatible for use with Items 19 and 21 Note: Supplier quoting for Item 20 must also quote for Item 19 and 21. Item 19, 20 and 21 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	
21	2 nos.	Guard kit for use with Items 19 and 20 - Stainless steel - Kit must include holder and coupler - Reusable - Able to attach directly to analytical column inlet - For use with analytical column with 2.1mm (ID) - Acclaim SST Guard Holder Kit, V-2 (P/N: 069707) or equivalent - Equivalent guard cartridge holder kit must be equal or better in performance than Acclaim SST Guard Holder Kit, V-2 (P/N: 069707) - Must be compatible for use with Items 19 & 20 Note: Supplier quoting for Item 21 must also quote for Item 19 and 20. Item 19, 20 and 21 are purchased as a set of the same series, and they will be awarded to the same supplier.	N/A	

Other information:

- Suppliers are to submit the product information (eg. reports, certificates, technical specifications, etc) for all items for evaluation.
- Where the ITQ indicates required item is to be a particular model or equivalent (e.g. ABC or equivalent), **the following samples** shall be provided if the Supplier's product is not the model stated **before the closing date and time of ITQ**. This is to facilitate AVA's evaluation of the proposed product to ascertain its suitability and ability to meet requirement(s).

Item no.	Description of Item	Number of samples required
1	HILIC Column (4.6mm ID x 150mm)	1 no.
2	HILIC Guard column for use with Items 1 and 3	1 no.
3	Guard Cartridge Holder for use with Item 1 and 2	1 no.
4	HILIC Column (2.1mm ID x 150mm)	1 no.
5	HILIC Guard column for use with Items 4 and 6	1 no.
6	Guard Cartridge Holder for use with item 4 and 5	1 no.
7	Hydroxide-selective Anion-Exchange column (2mm ID x 250mm)	1 no.
8	Microbore guard cartridge for use with Item 7	1 no.
9	Hydroxide-selective Anion-Exchange column (2mm ID x 250mm)	1 no.
10	Microbore guard cartridge for use with Item 9	1 no.
11	Reversed Phase LC column (2.1mm ID X 100mm)	1 no.
12	Guard cartridge for use with Items 11 and 13	1 no.
13	Guard Cartridge Holder for use with Items 11 and 12	1 no.

14	Guard cartridge (3mm ID X 10mm) for Reversed Phase LC column	1 no.
15	Mixed Mode LC column (2.1mm ID X 150mm)	1 no.
16	Guard column for use with Item 15	1 no.
17	LC column (2mm ID X 100mm)	1 no.
18	Guard column for use with Item 17	1 no.
19	Mixed Mode LC column (2.1mm ID X 100mm)	1 no.
20	Guard cartridge for use with Items 19 and 21	1 no.
21	Guard kit for use with Items 19 and 20	1 no.

If suppliers do not submit any samples, AVA reserves the right to reject the offer.

All samples must be properly labeled to show the ITQ number, Item number and the Supplier's company name and contact details.

Samples are to be submitted to:

Ms Low Hui Shan, Tel: 6795 2826 or Email: LOW_hui_shan@ava.gov.sg

Mrs Yip-Ng Sou Cheng, Tel: 6316 5148 or Email: YIP-NG_sou_cheng@ava.gov.sg

*Veterinary Public Health Centre
10 Perahu Road S718837*

Samples will be returned to supplier after evaluation

3. Supplier may quote for all the items, or any combination of which. AVA reserves the rights to award in parts or in whole. Prices quoted shall be deemed all inclusive and firm to fulfill the requirement stated in the Requirement Specifications. Any additional claims on grounds of omission shall not be entertained.
4. Delivery shall be made within 6 weeks upon order confirmation
5. Goods to be delivered to No.10 Perahu Road S718837.

Evaluation Criteria :

Offers will be evaluated based on the lowest that is technically acceptable.

Person to contact for queries:

Ms Shirley Shee, Tel no.: 6795 2814 or Email: Shirley_SHEE@ava.gov.sg (Items 1 to 6 & 14)

Ms Joanna Lee, Tel no.: 6795 2818 or Email: LEE_Joanna@ava.gov.sg (Items 7 to 13 & 15 to 21)

Submitted by: JOANNA ANG

Company: WATERS PACIFIC PTE LT

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