

HBL HILL BIOTECH LIMITED
 (a subsidiary of Hill Life Sciences Limited)
 A Division of Hill Life Sciences

Equipment Name: ELISA Plate Washer

Revision: 00

Project Name: Integrated Vaccines Complex,
Chengalpattu

Block Code	Block Name	Identification No.	Capacity	Quantity
G1	Animal house	G1-ELW 01	-	1
Q1	Admin, QA & QC	Q1-ELW 01	-	1

Name	Designation	Signature	Date
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Ms. Niharika Ruhela	Process Engineer	<i>for Sandeep</i>	18/02/16
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Mr. Yogesha M J	Process Engineer	yogesh@harmt	18/02/2016
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Dr. Harshad Mali	Lead Engineer - Process	4.1	19/02/16
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Name	Designation	Signature	Date
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User department: Quality Control	monayer	Sub	29/02/16
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User department: K. Ashwini Reddy Animal House	Deputy Manager	Lyman T. Reddy	02.03.16
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Project Engineering Department	Manager	A. Anttilä	24.02.16
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Head of the department Quality Control	Manager	<i>Ramu</i>	04/03/16
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Head of the department Ankita House	MANAGER	K. A. A. A.	03.03.16
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Head of the department (Signature)	Dr. M	Dr. Suresh Babu	04.03.11
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Project Authority	K R	C-E-O		7-3-16
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Equipment Specification Data Sheet		
HLL Biotech Limited, Chennai		
nne pharmanplan	INTEGRATED VACCINES COMPLEX, CHENGALPATTU	
	Equipment Name	ELISA Plate Washer
	Document No.	DS-ELW 02
	Revision No.	00
		
1	Process requirements	
1.1	The microplate washer is designed and shall be for washing various types of standard 96-well microtitre plates and 384 well microtitre plates, microstrips and microarrays for ELISA and related applications.	
2	Equipment ID	
2.1	G1-ELW 01	
2.2	Q1-ELW 01	
3	Technical Specification	
3.1	Manifold	8 and 12 way
3.2	Washing Wells	Must be suitable for washing all 96/384 wells of different bottoms- flat, round bottomed, U or V shapes. Must also be programmable to wash particular rows/columns.
3.3	Wash mode	Strip and plate
3.4	Fluid Inlets	Two fluids inlets with additional programming capabilities
3.5	Dispense Precision	± 5%
3.6	Wash cycles	Vendor to specify
3.7	Processing speed	Depends upon number of cycles up to 9 times
3.8	Pump	Vacuum /peristaltic
3.9	Aspiration time	Vendor to specify
3.10	Aspiration maximum residual volume in a well	< 2 µL per well
3.11	Volume range	50 to 300 µL per well
3.12	Soaking time	0 to 60 minutes
3.13	Shaking time	0 to 60 minutes
3.14	Bottle volume	2000 mL
3.15	Microprocessor controlled program	Required
3.16	Display	Front display panel with soft touch keys
3.17	Software	Create ,Edit and Run multiple protocols.Programmable automatic washing
3.18	Dimension (W x H x D)	Vendor to specify
3.19	Power Requirement	To be compatible to standard Indian Power Supply socket
3.20	Weight	Vendor to specify
4	Material of Construction	
4.1	Enclosure Box	Vendor to specify
4.2	Wash Heads	Vendor to specify
5	Specific Equipment requirement	
5.1	The unit shall be designed for use in closed rooms with relative humidity 15-85% and temperature 10 °C to 35 °C.	

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5.2	Reliable positive-displacement dispense pump that assures accurate and consistent dispensing.	
5.3	Aspiration to be facilitated with an appropriate pump	
5.4	Choice of 3 washing liquid bottles(1 for wash,1 for rinse and 1 for waste)	
5.5	Automated plate platform and washing head movement	
5.6	Unit to allow bottom washing	
5.7	Allow Manifold changeability in minutes	
5.8	Soft-touch keys on the display panel are used to create and store up to 50 user-defined programs.	
5.9	Programmable horizontal and vertical needle positions should be provided.	
5.10	8 and 12 channel autoclavable adaptors (for filling and washing) shall be provided.	
5.1	Equipment shall be compatible for cleaning with all standard disinfectants	
6	Other requirement	
6.1	Training/Demo for the users on operation and cleaning to be provided	
6.2	System shall have communication cable - RS 232 or RJ45 ethernet cable	
7	Regulatory aspects	
7.1	CE certification	
8	Safety requirements	
	Following facilities must be provided to protect personnel and equipment.	
8.1	In the event of equipment / system malfunction or loss of utilities, the unit must contain all necessary protection devices to ensure that the equipment / system and the article remain in a safe condition	
8.2	Appropriate closure of all parts.	
8.3	Proper earthing is necessary.	
9	Documents	
	Following documents, but not limited to these, are expected from the vendor as part of the supply package in hard copy as well as editable electronic file	
9.1	IOQ documents	
9.2	Operation and maintenance manuals shall be provided along with IOQ documents during installation at site.	
9.3	Warranty letter for 1 year from date of supply.	
9.4	Calibration certificate of critical instrument with respect to the traceable national reference standard instrument and their calibration procedures.	
10	Timelines	
10.1	Not Applicable	
11	Preferred list of Makes	
11.1	Bio-Rad, Biotek, Thermo Scientific	
	NOTE: Accurate size and technical specification need to be mentioned by the vendor	

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	Equipment Name	ELISA Plate Washer			
	Document No.	DS-ELW 02			
	Revision No.	00			
Table-1: Equipment location					
Equipment ID	Block Name	Room Name	Room No	Room dimension in mm	Room height in mm
G1-ELW 01	Animal house	Lab area -	G1G055	4700 X 7300	2700
Q1-ELW 01	Admin, QA and QC	Immuno	Q1S026	5360 X 5520	2400
Table-2: Change Log					
Date	Name	Revision	Section	Change/Comment	
10-02-2016	Ms. Niharika Ruhela	00		New document	
Table-3: Annexure					
Not applicable					