

Equipment Specification Data Sheet

Equipment Name: GEL DOC SYSTEM

Document No.: DS-GDS 01

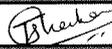
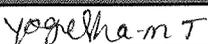
Revision: 00

Project No.: 120310

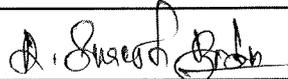
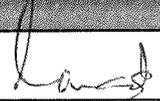
Project Name: Integrated Vaccines Complex, Chengalpattu

| Block Code | Block Name    | Identification No. | Capacity | Quantity |
|------------|---------------|--------------------|----------|----------|
| Q1         | Admin QA & QC | Q1-GDS 01          | -        | 1        |

NNE Pharmaplan India Limited

| Name               | Designation             | Signature  | Date       |
|--------------------|-------------------------|--|------------|
| <b>Prepared by</b> |                         |  |            |
| Mr. Tushar Shinde  | Process Engineer        |  | 11/02/2016 |
| <b>Checked by</b>  |                         |  |            |
| Mr. Yogesha M J    | Process Engineer        |  | 11-02-2016 |
| <b>Approved by</b> |                         |  |            |
| Dr. Harshad Mali   | Lead - Process Engineer |  | 11/02/2016 |

HLL Biotech Limited

| Name  | Designation   | Signature   | Date       |
|---|---------------|---|------------|
| <b>Reviewed by</b>  |               |   |            |
| User department:<br>SANJEEV KUMAR. P<br>Quality Control     | Manager       |  | 15/02/2016 |
| Project / Engineering department<br>VIGNESH WARAN.7         | DM-PROJECTS   |   | 15/2/16    |
| <b>Approved by</b>  |               |   |            |
| Head of the department:<br>V. SIVAKANESH<br>Quality Control | Manager       |   | 15/02/2016 |
| Head of the department<br>(QA) SURESH BABU                  | DM - Q.C & QA |   | 17.02.2016 |
| <b>Authorized by</b>  |               |   |            |
| Project Authority<br>RAMAN K.R.                             | C-E-0         |   | 19.2.16    |



| Equipment Specification Data Sheet  |   |  |
|---|---|--|
| HLL Biotech Limited, Chennai  |   |  |
| nne pharmaplan®   | INTEGRATED VACCINES COMPLEX, CHENGALPATTU   |  |
|   | Equipment Name  | GEL DOC SYSTEM   |
|   | Project #   | 120310   |
|   | Document #  | DS-GDS 01  |
|  |   |  |
| <b>1</b>  | <b>Process requirements</b>   |  |
| 1.1   | The equipment will be used to capture, optimise and document the image of nucleic acid and protein bands in gel either made of agarose or polyacrylamide. the equipment include UV tans illumination, CCD camera and connected to PC for image acquisition. |  |
| <b>2</b>  | <b>Equipment ID</b>   |  |
| 2.1   | Q1-GDS 01   |  |
| <b>3</b>  | <b>Technical Specification</b>  |  |
| 3.1   | Darkroom  | Compact design, Gel viewer window, door for accessing sample (access for excision or repositioning of illuminated gel)   |
| 3.2   | Detector  | CCD  |
| 3.3   | image resolution  | Should have atleast 4.0 megapixel Image resolution   |
| 3.4   | filter  | Excitation source: UV and Epi - white light  |
|   |   | Emission filters: 3-5 position holders with one standard filter (to view EtBr staining, SYBR green)  |
| 3.5   | PC  | External PC to be provided   |
| 3.6   | Software  | software to support image capturing,enhancement,editing,annotation,archiving and analysis, Microtitre plate, Eli spot, Array & Dot blot analysis, Q-PCR, Gel scoring, Band matching etc., optimising and saving; fast and efficient data transfer; automated work flows; autofocus |
| 3.7   | Max. Sample Size  | vendor to specify  |
| 3.8   | dimension   | vendor to specify  |
| 3.9   | weight  | vendor to specify  |
| 3.10  | operating voltage   | vendor to specify  |
| 3.11  | Quantity  | 1  |
| <b>4</b>  | <b>Material of Construction</b>   |  |
| 4.1   | Main body   | vendor to specify  |
| <b>5</b>  | <b>Specific Equipment requirement</b>   |  |
| 5.1   | Equipment shall facilitate easy cleaning and maitanance with standard disinfectant  |  |
| 5.2   | White Light Conversion screen   |  |
| 5.3   | Application: Ethidium bromide, SYBR green, Coomassie blue, Silver stain   |  |
| 5.4   | Detect straight, curved or slanted/ bands   |  |
| 5.5   | Enhance images with tools including emboss, invert and pseudocolor  |  |
| 5.6   | Create templates with customized settings for repeat experiments  |  |
| 5.7   | System shall able to have Ready to image the gel function without staining or destaining  |  |
| <b>6</b>  | <b>Other requirement</b>  |  |
| 6.1   | PC based result viewing and interpretation of results.  |  |
| 6.2   | Training/Demo for the users on operation and cleaning to be provided  |  |
| 6.3   | cables and acceseries for data transfer to be provided  |  |

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|------------------------------------|--|----------------|---|
| HLL Biotech Limited, Chennai       |  |                |   |
| nne pharmaplan®                    | INTEGRATED VACCINES COMPLEX, CHENGALPATTU  |                |  <b>HBL</b><br><small>HLL BIOTECH LIMITED<br/>           (Subsidiary of HLL Lifecare Limited,<br/>           A Government of India Enterprise)</small> |
|                                    | Equipment Name   | GEL DOC SYSTEM |   |
|                                    | Project #  | 120310         |   |
|                                    | Document #   | DS-GDS 01      |   |
| <b>7</b>                           | <b>Regulatory aspects</b>  |                |   |
| 7.1                                | CE certification   |                |   |
| <b>8</b>                           | <b>Safety requirements</b>   |                |   |
|                                    | Following facilities must be provided to protect personnel and equipment:  |                |   |
| 8.1                                | Appropriate clousure of all parts  |                |   |
| 8.2                                | Proper earthing of the equipment   |                |   |
| <b>9</b>                           | <b>Documents</b>   |                |   |
|                                    | 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 Protocol.  |                |   |
| 9.2                                | Operational Manual and maintainance manual shall be provided along with IQ and OQ documents during installation at site                                    |                |   |
| 9.3                                | warranty certificate for one year from date of supply  |                |   |
| 9.4                                | calibration certificate of critical instruments with respect to the tracable national reference standard instrument and their calibration procedure        |                |   |
| 9.6                                | Vendor should provide list of standard spare parts with ordering information.  |                |   |
| <b>10</b>                          | <b>Timelines</b>   |                |   |
| 10.1                               | Not Applicable   |                |   |
| <b>11</b>                          | <b>Prefered list of make</b>   |                |   |
| 11.1                               | BIORAD,UVP Ltd, Syngene,Vilber lourmet,Protein simple  |                |   |
|                                    | <b>NOTE:</b> Accurate size and technical specification need to be mentioned by the vendor  |                |   |

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**HLL Biotech Limited, Chennai**

|                        |  |                |   |
|------------------------|--|----------------|---|
| <b>nne pharmaplan®</b> | <b>INTEGRATED VACCINES COMPLEX, CHENGALPATTU</b> |                |  |
|                        | Equipment Name                                   | GEL DOC SYSTEM |   |
|                        | Project #  | 120310         |   |
|                        | Document #                                       | DS-GDS 01      |   |

**TABLE NO: 1**

| Equipment ID | Block Name     | Room Name            | Room No | Room dimension in mm | Room height in mm |
|--------------|----------------|----------------------|---------|----------------------|-------------------|
| Q1-GDS 01    | Admin, QA & QC | Immuno chemistry lab | Q1S026  | -                    | -                 |
|              |                |                      |         |                      |                   |

**Table-2: Change Log**

| Date       | Name          | Revision | Section | Change/Comment |
|------------|---------------|----------|---------|----------------|
| 26-11-2015 | Tushar Shinde | 00       | -       | New Document   |
|            |               |          |         |                |
|            |               |          |         |                |

**Table-3: Annexure**

Not applicable

