

# Health Certificates

## RIKEN BioResource Center

RIKEN BioResource Center adopts the sentinel mouse program, which is specialized for the micro isolator cage system. A sentinel mouse cage containing five mice is laid on a microisolator cage rack and small parts of used cage sheets from all cages of the rack are collected into the sentinel mouse cage every two weeks. Two mice from a sentinel cage are subjected to the examination bimonthly for our examination.

Our items to be examined are classified into four classes shown in the table below. All sentinel mice are tested under the class A and B. Sentinel mice kept in the room for immuno-deficient mice are screened on the class C as well. The class D contains a weak pathogen (MNV) or the certain pathogens that are believed not to exist in the Japanese mouse colonies hence mice are submitted to class D examination by request at recipient's charge.

Top of row of health report indicates the index code of the sentinel animals tested. First two letters mean the room number, and the last letter means the rack code.

For example;

If the index code is 3-1-A, the sentinel mouse tested is from the room "3-1" rack "A".

| Class | Microorganisms  |
|-------|---|
| A     | <i>C.piliforme</i> , Ectromelia virus, Hantaan virus, Lymphocytic choriomeningitis virus (LCMV), Mouse hepatitis virus (MHV), <i>M.pulmonis</i> , Sendai virus (HVJ)  |
| B     | <i>C.rodentium</i> , <i>C.kutscheri</i> , <i>F.rodentium</i> ('CAR bacillus') <i>P.pneumotropica</i> , <i>Salmonella</i> spp., <i>H.bilis</i> , <i>H.hepaticus</i> , Dermatophytes, Ectoparasites, Intestinal protozoa, Pinworms  |
| C     | <i>S.aureus</i> , <i>P.aeruginosa</i> , <i>P.murina</i>   |
| D     | Pneumonia virus of mice (PVM), Theiler's mouse encephalomyelitis virus (TMEV/GDVII), Mouse minute virus (MMV), Mouse parvovirus (MPV), Mouse polyoma virus (Poly), Reovirus type 3 (Reo3), Mouse adenovirus (MAV), Mouse rotavirus (EDIM), Mouse cytomegalovirus (MCMV), Lactate dehydrogenase elevating virus (LDHEV), Mouse norovirus (MNV) |

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# HEALTH CERTIFICATE

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Facility: RIKEN BRC Experimental Animal Division

Date: June 4, 2012

Examination No: 12128

| Class       | Pathogens                          | Methods     | Animals: BALB/c-nu/+ ♀ |       |       |       |       |       |       |       |       |       |     |
|-------------|------------------------------------|-------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
|             |                                    |             | 3-1-A                  | 3-1-B | 3-1-C | 3-1-D | 3-2-A | 3-2-B | 3-2-C | 3-2-D | 3-3-A | 3-3-B |     |
| A           | Mouse hepatitis virus              | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Sendai virus                       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Clostridium piliforme</i>       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Hantaan virus                      | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Ectromelia virus                   | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Lymphocytic choriomeningitis virus | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Mycoplasma pulmonis</i>         | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
| Cultivation |                                    | 0/1         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |     |
| A/B         | <i>Salmonella</i> spp.             | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
| B           | <i>Citrobacter rodentium</i>       | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Corynebacterium kutscheri</i>   | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Pasteurella pneumotropica</i>   | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Dermatophytes                      | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | CAR bacillus                       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Ectoparasites                      | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Intestinal protozoa                | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Pinworms                           | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Helicobacter bilis</i>          | PCR         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | <i>Helicobacter hepaticus</i>      | PCR         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
| C           | <i>Pseudomonas aeruginosa</i>      | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |
|             | Gross lesion                       |             | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1 |

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# HEALTH CERTIFICATE

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Facility: RIKEN BRC Experimental Animal Division

Date: June 4, 2012

Examination No: 12128

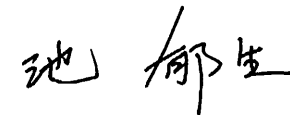
| Class        | Pathogens                          | Methods                 | Animals: BALB/c-nu/+ ♀ |            |            |            |            |            |            |            |            |            |
|--------------|------------------------------------|-------------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|              |                                    |                         | 3-3-C                  | 3-3-D      | 3-4-A      | 3-4-B      | 3-4-C      | 3-4-D      | 3-5-A      | 3-5-B      | 3-5-C      | 3-5-D      |
| A            | Mouse hepatitis virus              | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Sendai virus                       | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Clostridium piliforme</i>       | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Hantaan virus                      | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Ectromelia virus                   | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Lymphocytic choriomeningitis virus | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Mycoplasma pulmonis</i>         | Serology<br>Cultivation | 0/1<br>0/1             | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 | 0/1<br>0/1 |
| A/B          | <i>Salmonella</i> spp.             | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
| B            | <i>Citrobacter rodentium</i>       | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Corynebacterium kutscheri</i>   | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Pasteurella pneumotropica</i>   | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Dermatophytes                      | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | CAR bacillus                       | Serology                | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Ectoparasites                      | Microscopy              | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Intestinal protozoa                | Microscopy              | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | Pinworms                           | Microscopy              | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Helicobacter bilis</i>          | PCR                     | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
|              | <i>Helicobacter hepaticus</i>      | PCR                     | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
| C            | <i>Pseudomonas aeruginosa</i>      | Cultivation             | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |
| Gross lesion |                                    |                         | 0/1                    | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        | 0/1        |

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# HEALTH CERTIFICATE

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Facility: RIKEN BRC Experimental Animal Division

Date: June 4, 2012

Examination No: 12128

| Class       | Pathogens                          | Methods     | Animals: BALB/c-nu/+ ♀ |       |       |       |       |       |       |       |       |       |
|-------------|------------------------------------|-------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |                                    |             | 3-6-A                  | 3-6-B | 3-6-C | 3-6-D | 3-7-A | 3-7-B | 3-7-C | 3-7-D | 3-8-A | 3-8-B |
| A           | Mouse hepatitis virus              | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Sendai virus                       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Clostridium piliforme</i>       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Hantaan virus                      | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Ectromelia virus                   | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Lymphocytic choriomeningitis virus | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Mycoplasma pulmonis</i>         | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
| Cultivation |                                    | 0/1         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |       |
| A/B         | <i>Salmonella</i> spp.             | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
| B           | <i>Citrobacter rodentium</i>       | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Corynebacterium kutscheri</i>   | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Pasteurella pneumotropica</i>   | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Dermatophytes                      | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | CAR bacillus                       | Serology    | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Ectoparasites                      | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Intestinal protozoa                | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Pinworms                           | Microscopy  | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Helicobacter bilis</i>          | PCR         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | <i>Helicobacter hepaticus</i>      | PCR         | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
| C           | <i>Pseudomonas aeruginosa</i>      | Cultivation | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |
|             | Gross lesion                       |             | 0/1                    | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   | 0/1   |

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# HEALTH CERTIFICATE

4/4

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Date: June 4, 2012

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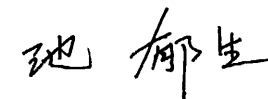
| Class | Pathogens                          | Methods                       | Animals: BALB/c-nu/+ ♀ |            |     |  |  |  |  |  |  |  |  |  |
|-------|------------------------------------|-------------------------------|------------------------|------------|-----|--|--|--|--|--|--|--|--|--|
|       |                                    |                               | 3-8-C                  | 3-8-D      |     |  |  |  |  |  |  |  |  |  |
| A     | Mouse hepatitis virus              | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Sendai virus                       | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Clostridium piliforme</i>       | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Hantaan virus                      | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Ectromelia virus                   | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Lymphocytic choriomeningitis virus | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Mycoplasma pulmonis</i>         | Serology<br>Cultivation       | 0/1<br>0/1             | 0/1<br>0/1 |     |  |  |  |  |  |  |  |  |  |
| A/B   | <i>Salmonella</i> spp.             | Cultivation                   | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
| B     | <i>Citrobacter rodentium</i>       | Cultivation                   | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Corynebacterium kutscheri</i>   | Cultivation                   | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Pasteurella pneumotropica</i>   | Cultivation                   | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Dermatophytes                      | Cultivation                   | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | CAR bacillus                       | Serology                      | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Ectoparasites                      | Microscopy                    | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Intestinal protozoa                | Microscopy                    | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | Pinworms                           | Microscopy                    | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Helicobacter bilis</i>          | PCR                           | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | <i>Helicobacter hepaticus</i>      | PCR                           | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |
|       | C                                  | <i>Pseudomonas aeruginosa</i> | Cultivation            | 0/1        | 0/1 |  |  |  |  |  |  |  |  |  |
|       | Gross lesion                       |                               | 0/1                    | 0/1        |     |  |  |  |  |  |  |  |  |  |

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