| Parameter                  | Clinical Observation                                                                 | Points |
|---------------------------|---------------------------------------------------------------------------------------|--------|
| Piloerection              | Normal coated fur                                                                     | 0      |
|                           | Partial ruffed fur                                                                    | 1      |
|                           | Slightly ruffed fur                                                                   | 2      |
|                           | Ruffed fur                                                                            | 3      |
| Body posture              | Normal posture                                                                        | 0      |
|                           | Slightly hunched posture                                                              | 1      |
|                           | Hunched posture                                                                       | 2      |
| Locomotion                | Spontaneous movement, movement after cage opening or provocation of sleeping animals, normal behavior | 0      |
|                           | Movement only after provocation                                                       | 1      |
|                           | No movement – **humane endpoint**                                                     | 2      |
| Agility                   | Normal and fast movements                                                             | 0      |
|                           | Slow and / or sluggish                                                                 | 1      |
| Breathing (Pneumoniae only)| Unaffected                                                                            | 0      |
|                           | Tachypnea                                                                             | 1      |
|                           | Tachypnea with abdominal effort while breathing, gasping                               | 2      |
| Reaction to tactile stimulation| Normal attentiveness, escape reflex at approach                                        | 0      |
|                           | Attentiveness slightly affected, reduced reaction to external stimuli                 | 1      |
|                           | Somnolent – **humane endpoint**                                                      | 2      |
| Ocular or nostril discharge| None                                                                                  | 0      |
|                           | Presence of ocular and / or nostril discharge (→ treatment with eye ointment)         | 1      |
|                           | Conjunctivitis with thick ocular discharge (→ treatment with eye ointment)           | 2      |
| Dehydration (exsiccosis)  | Regular skin turgor                                                                   | 0      |
|                           | Reduced skin turgor, delayed spread of skin fold (→ mashed and soaked wet food on cage floor) | 1      |
|                           | Poor skin turgor, no spread of skin fold – **humane endpoint**                       | 2      |
| Body weight loss          | 0-3%                                                                                  | 0      |
|                           | 3-10%                                                                                 | 1      |
|                           | 10-20%                                                                                | 2      |
|                           | >20%                                                                                  | 3      |
| Sum (Pneumoniae)          | Sum of clinical score ≥ 14 – **humane endpoint**                                      | $\sum 19$ |
|                           | Control frequency: daily                                                              |        |
|                           | measures to increase animal well-being                                               |        |
| Sum (post-irradiation)    | Sum of clinical score ≥ 12 – **humane endpoint**                                      | $\sum 17$ |
|                           | (breathing not taken into account)                                                    |        |
|                           | Control frequency:                                                                   |        |
|                           | day 0-5: daily                                                                        |        |
|                           | day 6-14: three times if clinical score ≤ 5                                           |        |
|                           | week 3-6: once if clinical score ≤ 5                                                  |        |
### Sup. Table 2: Scoring system to evaluate the pathology of deparaffinized lung sections

| Criteria                  | Score | Pathology                                           |
|---------------------------|-------|-----------------------------------------------------|
| number of inflammatory cells | 0     | none, number of macrophages normal                  |
|                           | 1     | low number of inflammatory cells                   |
|                           | 2     | high number of inflammatory cells                  |
| degree of tissue bleeding  | 0     | none                                                |
|                           | 1     | low number of erythrocytes in alveoli              |
|                           | 2     | high number of erythrocytes in alveoli             |
| presence of oedema         | 0     | none                                                |
|                           | 1     | moderate                                            |
|                           | 2     | extensive                                           |
| affected areas             | 0     | none                                                |
|                           | 1     | 0-10%                                               |
|                           | 2     | 10-20%                                              |
|                           | 3     | 25-50%                                              |
|                           | 4     | 50-75%                                              |
|                           | 5     | >75%                                                |
| peribronchial infiltrate   | 0     | none                                                |
|                           | 1     | low                                                 |
|                           | 2     | moderate                                            |
|                           | 3     | evident                                             |
|                           | 4     | extensive                                           |
|                           | 5     | severe                                              |
| luminal exudation          | 0     | none                                                |
|                           | 1     | low                                                 |
|                           | 2     | moderate                                            |
|                           | 3     | evident                                             |
|                           | 4     | extensive                                           |
|                           | 5     | severe                                              |
| overall pathology          | 0     | none                                                |
|                           | 1     | low, 10%                                            |
|                           | 2     | moderate, 10-25%                                    |
|                           | 3     | evident, 25-50%                                     |
|                           | 4     | extensive, 50-75%                                   |
|                           | 5     | severe >75%                                         |
**Sup. Fig.1.** Histological score of each parameter to evaluate the pathology of deparaffinized lung sections referring to the overall score represented in Fig. 3.

**Sup. Table 3:** Histological score of each parameter to evaluate the pathology of deparaffinized lung sections referring to the overall score represented in Fig. 3.

| median of score | number of inflammatory cells | degree of tissue bleeding | presence of oedema | affected areas | peribronchial infiltrate | luminal exudation | overall pathology | sum |
|-----------------|------------------------------|---------------------------|--------------------|----------------|--------------------------|------------------|-------------------|-----|
| WT-WT Mock      | 0                            | 0                         | 0                  | 0              | 0                        | 0                | 0                 | 0   |
| WT-WT C.ps.     | 1                            | 0.5                       | 1                  | 1              | 1                        | 1                | 1                 | 7   |
| C3-WT Mock      | 1                            | 0                         | 0                  | 1              | 0                        | 0                | 0                 | 2   |
| C3-WT C.ps.     | 2                            | 1                         | 2                  | 2              | 1.5                      | 1.5              | 2                 | 12.5 |
| C3-C3 Mock      | 1                            | 0                         | 0                  | 1              | 0                        | 0                | 0                 | 2   |
| C3-C3 C.ps.     | 2                            | 1.5                       | 2                  | 3              | 2                        | 2                | 3                 | 15.5 |
| WT-C3 Mock      | 1                            | 0                         | 1                  | 1              | 0                        | 0                | 0                 | 3   |
| WT-C3 C.ps.     | 2                            | 1                         | 2                  | 3              | 2                        | 2                | 3                 | 15   |