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aan to whom it may concern
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onderwerp

Information on the malaria parasite of rodents, *P. berghei* and the handling of transgenic *P. berghei* parasites in the laboratory:

- *P. berghei* infects African murine rodents and is a unicellular eukaryote (Protozoa, subphylum Sporozoa, genus Plasmodium)
- The natural hosts are murine rodents from Central Africa (*Grammomys surdaster, Praomys surdaster, Leggada bella)*
- *P. berghei* is transmitted between mammal hosts by female *Anopheles* mosquitoes The only known natural vector is *A. dureni.*
- *P. berghei* is non-infectious to man and cannot infect other mammals other than rodents.
- In the laboratory *P. berghei* can infect rats, mice and hamsters and it can be transmitted by several different species of Anopheles mosquitoes. For transmission in the laboratory usually *A. stephensi* is used.
- Transmission of the parasite is not possible via air or via water. Mosquitoes infected with *P. berghei* are not infectious to man. *P. berghei* sporozoites are not infectious to man. P. berghei is placed in risk group 2.
- Sporozoites that are infectious to rodents are only produced in mosquitoes that are kept under standard temperature conditions ranging from 18-22C during a period of at least 14-18 days. *P. berghei* has been used for more then 30 years in many countries over the world.

- Transgenic parasites made in the Department of Parasitology (LUMC) in Leiden are non-infectious to man and pose no threat to human health.
- In the Netherlands transgenic parasites are generated in laboratories with lowest category of biosafety containment level (ML-I, comparable with BSL-1) stipulated by the Dutch Government.
- Mice and mosquitoes infected with transgenic *P. berghei* are kept under DMII containment level as stipulated by the Dutch Government (comparable with Animal BSL-2).

With kind regards,,

Dr. C.J. Janse

Dr. A. Waters

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Reagent Description

Parasites

MR4 Number:	**MRA-871**
Organism:	Plasmodium berghei
Designations:	ANKA cl15cy1
Depositors:	CJ Janse, AP Waters

Depositor Statement	Genome sequence reference line for P. berghei. Reference clone of the ANKA strain; produces wild type numbers of gametocytes, ookinetes, oocysts, sporozoites.
Biosafety Level:	1 **Shipped:** frozen
Classification:	KINGDOM: Protozoa
Preservations:	**Freeze medium:** Mix 1ml of infected blood, parasitemia >3% with 1ml of 30%/70% (v/v) glycerol/PBS. 0.5ml aliquots slow frozen (1C / min. overnight) at -80C, stored in liquid nitrogen.
Propagation:	**Culture System::** intact animal
References:	92925: Hall N, et al. A comprehensive survey of the Plasmodium life cycle by genomic, transcriptomic, and proteomic analyses. Science 307: 82-6, 2005. PubMed: 15637271

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Reagent Description

Parasites

MR4 Number:	**MRA-865**
Organism:	Plasmodium berghei
Designations:	(ANKA) GFPcon 259cl2
Depositors:	CJ Janse, AP Waters

Depositor Statement	Genetically modified parasite of clone cl15cy1 of the ANKA strain; expresses GFP constitutively during the whole life cycle. The transgene from pL0016 (MRA-785) is integrated into the genome by single cross-over integration and therefore parasites can lose the construct and revert to wildtype; treat with pyrimethamine in drinking water to prevent or reselect. This line contains 2-3 copies of the construct integrated into the c-rrna unit and has a higher level of GFP expression than single gfp gene integrants. Gametocyte, ookinete, oocysts, sporozoite and liver development is comparable to wildtype P. berghei (ANKA)
Biosafety Level:	1 **Shipped:** frozen
Classification:	KINGDOM: Protozoa
Genotype:	This transgenic line expresses GFP constitutively during the whole life cycle. Transgene: gfp under the control of the eef1a promoter. Selectable marker: pyrimethamine resistant tgdhfr. Method of selection: drug (pyrimethamine) selection Integration target: the c-rrna unit Mode of integration: single cross-over integration
Preservations:	**Freeze medium:** Mix 1ml of infected blood, parasitemia >3% with 1ml of 30%/70% (v/v) glycerol/PBS. 0.5ml aliquots slow frozen (1C / min. overnight) at -80C, stored in liquid nitrogen.
Propagation:	**Culture System::** intact animal
Related Products:	plasmid DNA: MRA-785
References:	92608: Franke-Fayard B., et al. A Plasmodium berghei reference line that constitutively expresses GFP at a high level throughout the complete life cycle. Mol. Biochem. Parasitol. 137: 23-33, 2004. PubMed: 15279948

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