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# Anopheles gambiae Patton (Cellia)

Strain Name: MOPTI, MRA-763

Place of Origin: N'Gabacoro Droit, Mali

Colonization date: 1995

**Established by:** Dr. Greg Lanzaro **Deposited by:** Dr. Greg Lanzaro

Genotype: 2La/a, 2r+/+, TEP1 r/r

**Phenotype**: red stripe, polymorphic for c+ (*collarless*)

Karyotype: Polymorphic for "U" inversion on 2R

Ribosomal DNA form: Mopti Insecticide Resistance: none

### **Larval Morphological Traits**



Collarless (c+) is caused by a uric acid build-up in the larvae. Expression is often variable but best seen in L4 larvae. MOPTI is polymorphic for this trait.



Red stripe-if present, individuals expressing red stripe are female



When reared in a dark pan, larvae with wildtype eye color will melanize when compared to a cohort reared in a white pan.

#### **Adult Morphological Traits**









Morphological characteristics of An. gambiae s.l. adults.

#### **Authentication Methods used to confirm stock identity**

- 1. Examined immatures for the collarless (c+) trait: L4 larvae are polymorphic for c+
- 2. Examined the color of the larvae when cultured in a black pan: larvae are distinctly melanized when compared to a cohort reared in a white pan.
- 3. Treated 50 larvae at 20ppm propoxur for 1 hour 100% mortality.
- 4. Performed molecular *An. gambiae* identification: all tested individuals are positive for both *An. gambiae* s.s. and Mopti rDNA form.
- 5. Performed molecular An. gambiae white gene PCR authentication: all had mopti specific bands



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6. Examined adults microscopically for morphological characters: all individuals had standard features of *An. gambiae* and wild eye color.

## References referring to this stock:

Wilkins, E., P. Howell, et al. (2007). "X and Y chromosome inheritance and mixtures of rDNA intergenic spacer regions in Anopheles gambiae." Insect Molecular Biology 16(6): 735-741.

Wilkins, E. E., P. I. Howell, et al. (2006). "IMP PCR primers detect single nucleotide polymorphisms for Anopheles gambiae species identification, Mopti and Savanna rDNA types, and resistance to dieldrin in Anopheles arabiensis." Malaria Journal 5(1): 125.