



Anopheles arabiensis Patton (Cellia)

Strain Name: SENN

Place of Origin: Gezira, Sudan

Colonization date: 1969

Established by: Malaria Training Center

Deposited by: Dr. Mustafa Dakeen

Genotype: La/La, TEP1 s/s

Phenotype: red stripe, monomorphic for c+ (*collarless*), Increased cytochrome P-450 activity

Karyotype: polymorphic for 2Ra, 2Rb, and 2Rbc. Also has inversion on 3Ra and 2La is fixed in inverted position.

Insecticide Resistance: dieldrin

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. SENN is monomorphic for c+.

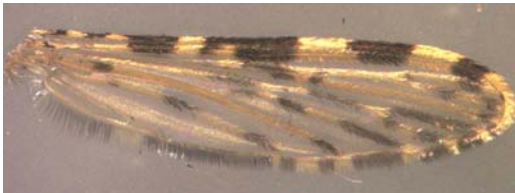


Red stripe-if present, individuals expressing red stripe are female



When reared in a dark pan, larvae with wild-type 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 adults microscopically for morphological characters: all individuals had standard features of *An. gambiae s.l.* and wild eye color.
2. Exposed L4 larvae to 1ppm dieldrin for 1 hour to confirm resistant status – expect ~100% survival. Continue stock with survivors.
3. Performed molecular *An. gambiae s.l.* identification: stock is *An. arabiensis*.
4. Performed molecular GABA PCR: stock shows 100% GABA mutation.



References referring to this stock:

Du, W., T. S. Awolola, et al. (2005). "Independent mutations in the Rdl locus confer dieldrin resistance to *Anopheles gambiae* and *An. arabiensis*." *Insect Molecular Biology* 14(2): 179-183.

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.

Related Sequences:

Anopheles arabiensis strain SENN GABA receptor subunit (Rdl) gene, partial cds - Pubmed Accession Number AY787486