

Cell line designation: Sf9

Tissue source: *Spodoptera frugiperda*
pupal ovaries – clone of IPLB-SF21AE

Date initiated: original line, January 1969;
Clone, ca. 1985

Morphology: Round and short spindle-shaped

Karyology: polyploid

Culture medium: ExCell 420 (SAFC Biosciences; Kansas City, MO; formerly JRH Biosciences)

OR

TNM-FH (aka modified Grace's medium)

100ml Grace's

0.3 g lactalbumin hydrolysate

0.3 g TC yeastolate

10ml Fetal Bovine Serum

Subculture procedure: Place a confluent (1-week old) culture at 4°C for 20 minutes. Add 2.5 ml fresh medium to a new 25-cm² culture flask. Suspend cells by sharply striking the flask on the palm of your hand or by flushing with medium from a pipet. Transfer 0.5 ml of old culture to new flask. Incubate at 26-28°C

Comments: This line was originally established by Vaughn et al. in 1969 using Yunker, Cory, Vaughn medium (1967) supplemented with 2.6% heat-treated *Bombyx mori* hemolymph. Following establishment, the line was provided to the NERC Unit of Invertebrate Virology (Oxford, U.K.) where it was adapted to growth in medium containing fetal bovine serum instead of insect hemolymph (the "AE" in the designation refers to "adapted in England") and was subsequently provided to researchers at Texas A&M where it was cloned. The line is susceptible to several baculoviruses and is widely used in research with AcMNPV.

References:

Summers, M. D., and Smith, G. E. (1987). A Manual of Methods for Baculovirus Vectors and Insect Cell Culture Procedures. Texas Agricultural Experiment Station Bulletin 1555.

Vaughn, J. L., Goodwin, R. H., Tompkins, G. J., and McCawley, P. 1977. The establishment of two cell lines from the insect *Spodoptera frugiperda* (Lepidoptera: Noctuidae). *In Vitro* **13**:213-217.

