User Instructions: Stab Culture

Retrieve Vector Information
Your vector has a unique vector ID that is printed on the stab culture tube. You can use this ID to retrieve the vector map, vector sequence and vector component annotation through "Retrieve Vector Information" link on VectorBuilder’s homepage (www.vectorbuilder.com).

Storage
The vector is shipped at ambient temperature as a stab culture containing cryoprotectant. It can be put directly in -80°C for long-term storage. You can also make a separate glycerol stock as a backup. The stab culture can be placed in 4°C for short term storage (≤2 weeks).

Inoculation
The stab culture comes from a single clone. You can use it to directly inoculate LB liquid culture. However, in some cases, this approach could result in low DNA yield from the liquid culture. This problem typically goes away if you streak the E. coli on a plate first, and while the colonies are still fresh, use one colony to inoculate liquid culture.

To inoculate from the stab culture, take a clean pipette tip, push the tip into the stab culture. Sometimes, you may see a yellowish trail left by E. coli growth, in which case you can try to push the tip into this trail. If you don’t see a trail, you can push the tip down the center of the stab culture for about 1 cm, then pull the tip out and push it back in a few more times, each time, alter the position slightly. You can then use the tip to streak an LB plate or inoculate LB liquid culture.

Some vectors, especially those with large sizes, repetitive sequences or unusual GC content, might have the tendency to undergo rearrangements such as deletions. One way to reduce this possibility is to grow the E. coli at 30°C on plate and liquid culture instead of the standard 37°C.

Antibiotic Concentration
The antibiotic resistance of the vector is printed on the stab culture tube. Please use this antibiotic in LB plate or liquid culture at the recommended concentration below.

Ampicillin: 100 μg/ml
Kanamycin: 50 μg/ml
Chloramphenicol: 34 μg/ml
Tetracycline: 5 μg/ml
Streptomycin: 50 μg/ml

Host Strain
Please pay attention to the E. coli host strain information printed on the stab culture tube. Most vectors are constructed in VB UltraStable host to ensure sequence stability. Some applications require the use of other hosts. For example, recombinant protein expression from pET vectors typically requires E. coli hosts carrying the T7 RNA polymerase gene, such as BL21(DE3). In such cases, vectors from the VB UltraStable host need to be retransformed into the appropriate hosts.