



Figure 15. Construction of pITB247 series.

The *NdeI-BamHI* fragment of HBsAg gene was cloned into *NdeI-BamHI* sites of pET3a (gift from Dr. M. K. Reddy). The unique *BamHI* site was destroyed by digestion with *BamHI* enzyme, blunt ended with Klenow and religated to yield pET3a-HBsAg(B). The 947 bp fragment containing “T7 promoter:HBsAg:T7 terminator” cassette was amplified from pET3a-HBsAg(B) and cloned as *BamHI* fragment into into *BglIII* site of pITB245 yielding pITB247. The 2.1 kb *BamHI-BamHI* fragment containing “T7 promoter:uidA:T7 terminator” cassette was cloned into *BglIII* of pITB247 to yield pITB247G1 (*uidA* is in the same direction with reference to ferritin gene), pITB247G2 (*uidA* is in the same direction with reference to HBsAg gene) and pITB247G3 (two copies got cloned in the same direction with reference to ferritin gene).