**Restriction Enzyme Cleavage Efficiency**

RE**: XhoII**

Compatible Ends: BstX2I, BstYI, MflI, PsuI

Gene: Tetracycline Resistance J31007 @ 290bp

Information:

 Recognition Site: RGATCY (R=puRine (A,G) Y=pYrimidine (T,C)

 After cut: R^GATCY

 Reaction Conditions: 37°C

 Heat Denaturation: 65°C for 20 minutes

At 37°C  % of Cleavage : 30 for BstYI\*

RE: **Bam HI**

Compatible Ends: None

Gene: Tetracycline Resistance J31007 @ 290bp

Information:

 Recognition Site: GGATCC

 After cut: G^GATTC

 Reaction Conditions: 37°C

 Heat Denaturation: 65°C for 15 minutes

At 37°C  % of Cleavage: 50-100

Completely cleaves in an extension mix with 5 units of enzyme

RE: **BspHI**

Compatible Ends: PagI, RcaI

Gene: Tetracycline Resistance J31007 @ 404 bp

Information:

 Recognition Site: TCATGA

 After cut: T^CATGA

 Reaction Conditions: 37°C

 Heat Denaturation: 65°C  for 20 minutes

% of Cleavage 2 bp from site to end of PCR fragment: 50-100%

25% to no cleavage in an extension mix with 5 units of enzyme

\*In a standard Taq reaction buffer

Sources:

<http://www.neb.com/nebecomm/tech_reference/restriction_enzymes/activity_in_taqPCRmix.asp>

<http://www.fermentas.com/techinfo/re/restrdigpcrii.htm>

<http://thelabrat.com/restriction/BspHI.shtml>