The full-length, active T7 Endo I is generated in vitro by ligating a synthetic peptide, consisting of the truncated amino acid residues, to the thioester-tagged tT7 Endo I (1).

Applications:
- Resolve four-way junction or branched DNA
- Detect or cleave heteroduplex and nicked DNA
- Randomly cleave linear DNA for shot-gun cloning

Reagents Supplied with Enzyme: 10X NEBuffer 2

Note: pUC(AT) is derived from pUC19 with a modification of the polylinker between the EcoRI site and the PstI site.

Reaction Conditions: 1X NEBuffer 2.

Incubate at 37°C.

Supplied in: 200 mM NaCl, 20 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 1 mM dithiothreitol, 0.15% Triton X-100 and 50% glycerol.

Unit Definition: One unit is defined as the amount of enzyme required to convert > 90% of 1 µg of supercoiled cruciform pUC(AT) to > 90% linear form in a total reaction volume of 50 µl in 1 hour at 37°C.

Diluent Compatibility: Diluent Buffer C

Quality Assurance: Purified free of contaminating exonucleases and endonucleases.
T7 Endonuclease I is a structure-selective enzyme. It acts on a variety of DNA substrates with different specific activities. It is important to control the amount of enzyme and the reaction time used for cleavage of a particular substrate. This enzyme is not recommended to be used at 55°C, as the activity is decreased.

References: