

## ThermoActive™ $\alpha$ -1,4 glucantransferase – Elo 127

### Product information

Available as freeze dried powder, ~80% pure by SDS-PAGE.  
 Activity: 740 U/mg powder, or 5.000 U/mg protein.  
 Store at 4°C.

### Enzyme activity

Transfers one glucose unit from the non-reducing end of  $\alpha$ -1,4 glucan, such as amylose, to a new position in an acceptor, which may be triose or larger. The reaction results in chain elongation. Alternative names are: disproportionating enzyme; dextrin glycosyltransferase; glucantransferase.

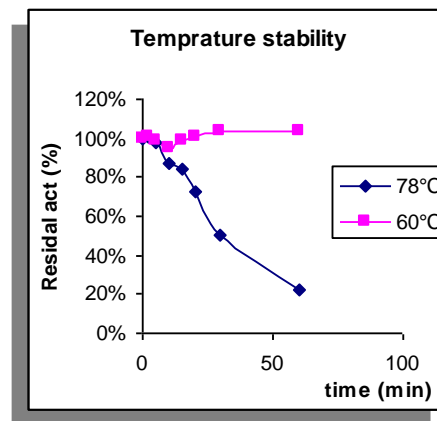
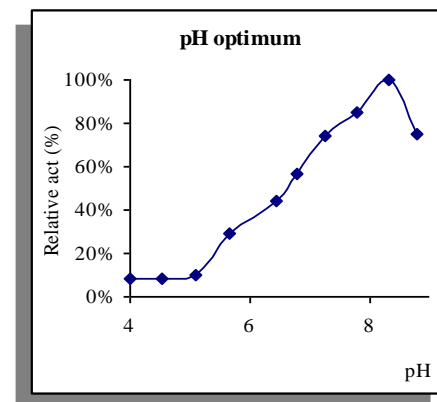
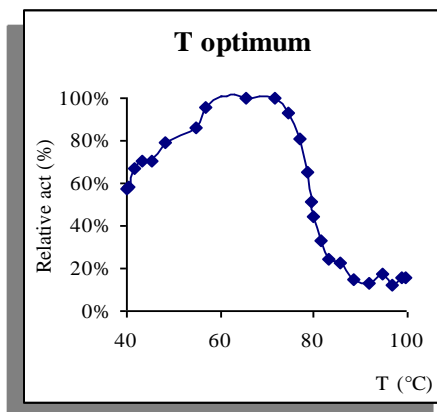
The enzyme is ideal for making clear size ladders of oligosaccharides larger than maltose.

### Assay

Elongation enzyme activity was assayed in 200  $\mu$ L of 0.01% (w/v) of amylose. in 50 mM potassium phosphate buffer, pH 8.0. The reaction was incubated at 65°C for 10 min and stopped by adding 100  $\mu$ L of Lugol's solution and OD measured at 650 nm.

### Unit definition

One unit (U) is defined as the amount of enzyme which lowers the OD at 650nm from 1.2 to 0.7 in 15 minutes.





TLC of Elo127 making ladders by transfer of single glucose units



<u>Lane</u>	<u>Mix added</u>
1	Standard ladder
2	Glucose control
3	Glucose + enzyme
4	Maltose control
5	Maltose + enzyme
6	Maltotriose control
7	Maltotriose + enzyme
8	Maltotetraose control
9	Maltotetraose + enzyme
10	Maltopentaose control
11	Maltopentaose + enzyme
12	Maltohexaose control
13	Maltohexaose + enzyme
14	Maltoheptose control
15	Maltoheptose + enzyme