



XRN-1

Cat. No.	size
E1155-01	50 units

Concentration: 1 000 units/ml

Unit Definition: One unit is defined as the amount of enzyme that digests 1 µg of phosphorylated yeast RNA in 60 minutes at 37°C.

Storage Conditions: Store at -20°C.

Quality Control:

All preparations are assayed for contaminating endonucleases, exonucleases, nonspecific RNases, single- and double-stranded DNase activities. Greater than 85% as determined by SDS-PAGE.

XRN-1 is highly processive 5'→3' exoribonuclease, requiring 5' monophosphate.

Description:

XRN-1 also acts on 5' monophosphate ssDNA with greatly reduced efficiency. XRN-1 is not efficient in removing RNAs with recessed 5'P, like tRNA. It does not cleave dsDNA, ssDNA and RNA which contain di-, triphosphate, OH and capped 5' ends.

Source: An *E. coli* strain containing a clone of the *S.cerevisiae* XRN-1 gene.

Format: liquid

Storage Buffer: 500 mM NaCl, 20 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 2 mM DTT, 0.1% (v/v) Tergitol™ TMN, 50% glycerol.

XRN-1 Reaction Buffer (1x): 50 mM Tris-HCl, 100 mM NaCl, 10 mM MgCl₂, 1 mM DTT, pH 7.9 at 25°C.

XRN-1 exemplary reaction (20 µl):

Component:	Amount:
10 x XRN-1 Reaction Buffer	2 µl
Single stranded 5' phos-RNA	1 µg
XRN-1 (1 000 U/ml)	2 U
RNase-free Water	to 20 µl

Incubate at 37°C for 60 minutes, proceed to RNA clean up for further RNA manipulation steps.