Salt Active Nuclease (SAN)

Product Data

Source
Produced in a *Pichia pastoris* strain expressing a gene for a recombinant Nuclease.

Concentration
1 mg/ml

Specific activity
Ca. 7.6 x 10^6 Unit/mg

Unit definition
1U = ΔA260 = 0.001/min at 37°C in a buffer consisting of 25 mM Tris-HCl, pH 8.5 (25°C), 5 mM $MgCl_2$, 0.5 M NaCl, 50 µg/ml calf thymus DNA (D-1501, Sigma). Total reaction volume of 1 ml.

Storage
Store at -20°C

Storage buffer
25 mM Tris-HCl (pH 7.5 at 25°C)
5.0 mM $MgCl_2$
0.5 M NaCl
0.01% (v/v) Triton X-100
50% (v/v) glycerol

Protocol recommendations
SAN is active in all common buffers tested
Optimum salt: 0.5 M NaCl
Optimum pH: 9
Optimum reaction temperature: 37°C
20% activity at 6°C, at optimum salt concentration
Requires Mg^{2+} for activity

Properties
Salt Active Nuclease is an unspecific nuclease cleaving double- and single-stranded DNA and RNA. It is active at a broad pH range and unlike other unspecific nucleases it has optimum activity at high concentrations of salt, and also good activity at high pH. These features make the Salt Active Nuclease ideal for use in removal of DNA from cell extracts and protein samples. Degrades DNA vs RNA in a 10:1 ratio.

Applications
Removal of DNA from cell extracts and protein samples.

For further information contact:

Gerd Nilsen
gn@arcticzymes.com
+47 45 47 00 77