Dissociation Reagents

DNase I, ACF

Animal component-free DNase I for digestion of DNA

Catalog #	07473	25,000 Units
	07474	100,000 Units
	100-0273	500,000 Units

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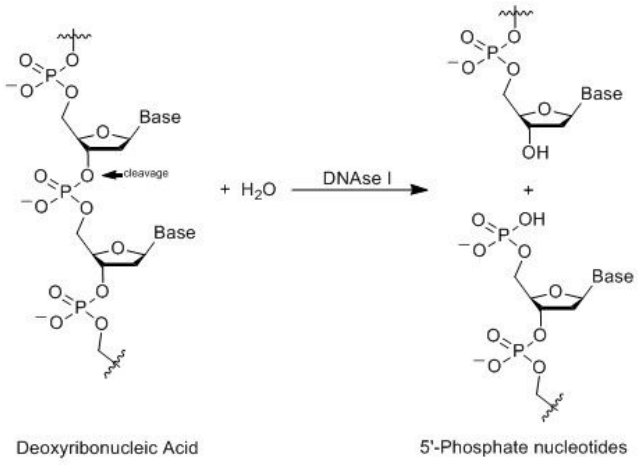
Product Description

Deoxyribonuclease I (DNase I), Animal Component-Free (ACF) is obtained from cultures free of animal-derived materials and purified by chromatography. DNase I is an endonuclease consisting of a single glycosylated polypeptide chain with two disulfide bonds. DNase is often included in tissue dissociation protocols to digest DNA that has leaked into the dissociation medium as a result of cell damage. DNase I, ACF preferentially cleaves phosphodiester linkages adjacent to pyrimidine nucleotides in both single- and double-stranded DNA, yielding polynucleotides with 5'-phosphate and 3'-hydroxyl groups (Bernardi et al.). DNase I has been used for the dissociation of human tissues such as microglia (Klegeris & McGeer), cartilage (Dunham & Koch), colon (Fukushima & Fiocchi), epithelium (Fukushima & Fiocchi), liver (Vatakis et al.), lung (Fujino et al.), and neural (Fuja et al.), and for dissociation of stem cells (Kusuma et al.).

Product Information

Alternative Names:	DNA endonuclease; DNA nuclease; Deoxyribonucleic phosphatase; Pancreatic DNase; Thymonuclease
Format:	Lyophilized powder
Storage:	Store at 2 - 8°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Reconstitution:	Dissociation reagents can be reconstituted in a balanced salt solution or buffer of choice.
Molecular Weight:	29.1 kDa
CAS Number:	9003-98-9
Optimum pH:	7.8
Cleavage Site:	DNase I preferentially splits phosphodiester linkages adjacent to a pyrimidine nucleotide. This yields 5'-phosphate terminated polynucleotides with a free hydroxyl group at the 3' position.



Cleavage site of DNase I

Please refer to the Safety Data Sheet (SDS) for hazard information.

Specifications

Source:	Pichia pastoris
Activity:	≥ 2000 units/mg dry weight. See Notes for further information.

Related Products

For a complete list of dissociation reagents, as well as related products available from STEMCELL Technologies, visit www.stemcell.com or contact us at techsupport@stemcell.com.

Notes

ACTIVITY UNITS
1 unit refers to the amount of DNase I required to act on 1 mg/mL of DNA (pH 5.0, 25°C) to produce an increase in absorbance of 0.001 per minute at a wavelength of 260 nm.

References

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