Manual

Hybridase Thermostable RNase H

For Research Use Only. Not for use in diagnostic procedures.

Hybridase™ Thermostable RNase H is part of the Epicentre™ product line, known for its unique genomics kits, enzymes, and reagents which offer high quality and reliable performance.

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1. Introduction

Hybridase Thermostable RNase H is an enzyme that specifically degrades only the RNA strand of an RNA: DNA hybrid, leaving the DNA strand and any unhybridised RNA intact. Unlike *E. coli* RNase H, Hybridase RNase H is highly active and stable at high temperatures. The enzyme's half-life is several hours at 70 °C and approximately 30 minutes at 95 °C. These characteristics allow researchers to increase the stringency of many applications that use RNase H activity, including RNA mapping studies and diagnostic probe research.

2. Product designations and kit components

Product	Kit size	Catalogue number	Reagent description	Part number	Volume
Hybridase Thermostable RNase H	500 units	H39500	Hybridase Thermostable RNase H (5 U/µL)	E0038-5D1	100 µL

3. Product specifications

Storage: Store only at -20 °C in a freezer without a defrost cycle.

Unit definition: One unit results in the acid-solubilisation of 1 nmole of [^{3}H]-polyadenylic acid in the presence of an equimolar concentration of polythymidylic acid in 20 minutes at 45 °C.

Note: *The unit assay is performed at 45 °C due to the T_m of poly(dT)/poly(A). The optimal temperature for many applications may be considerably higher.*

Storage buffer: Hybridase RNase H is supplied in a 50% glycerol solution containing 50 mM Tris-HCl (pH 7.5), 0.1 M NaCl, 0.1 mM EDTA, 1 mM dithiothreitol and 0.1% Triton® X-100.

Quality control: Hybridase RNase H is function-tested in a reaction containing 50 mM Tris-HCl (pH 7.5), 100 mM NaCl, 10 mM $MgCl_2$, 500 µM polythymidylic acid and 500 µM polyadenylic acid.

Recommended reaction buffer: The recommended reaction buffer for Hybridase RNase H is 50 mM Tris-HCl (pH 7.5), 100 mM NaCl and 10 mM MgCl2.

Contaminating activity assays: Hybridase RNase H is free of detectable DNA exo- or endonuclease, and non-RNase H RNase activities.

4. Further support

If you require any further support, please do not hesitate to contact our Technical Support Team: techsupport@lgcgroup.com.

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