

## New England Biolabs Certificate of Analysis

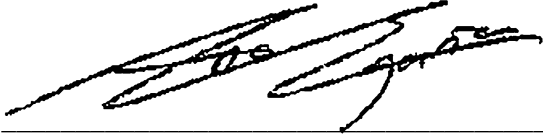
**Product Name:** *DrdI*  
**Catalog Number:** *R0530S*  
**Concentration:** *10,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in 1 hour at 37°C in a total reaction volume of 50 µl.*  
**Packaging Lot Number:** *10249268*  
**Expiration Date:** *04/2026*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-R0530S/L v3.0*

DrdI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0530SVIAL	DrdI	10235794	Pass
B6004SVIAL	rCutSmart™ Buffer	10249064	Pass

Assay Name/Specification	Lot # 10249268
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of DrdI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of pUC19 DNA with DrdI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with DrdI.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of pUC19 DNA and a minimum of 30 units of DrdI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	<b>Pass</b>

This product has been tested and shown to be in compliance with all specifications.

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