Technical Information
Products for Molecular Biology

20% (w/v) Sodium Dodecyl Sulfate (20% SDS)
(Molecular Biology Grade)

Catalog #:	351-066-721 4x100ml, 100 ml 351-066-101 500 ml
Store at:	25°C
Shipped at:	ambient temperature
Composition:	Sodium dodecyl sulfate (SDS) 200.00 g/L or 20%(w/v) (lauryl sulfate, sodium salt) in Molecular Biology Grade Water

Note: If 20% SDS gels at low temperature, warm at 30-40°C until the solution clears. This gelling will not affect the performance of the product.

DESCRIPTION

Quality Biological's (QBI) 20% (w/v) Sodium Dodecyl Sulfate is prepared from molecular biology grade sodium dodecyl sulfate using Quality Biological's Molecular Biology Grade (MBG) Water. The final product is sterile filtered through a 0.2 µm filter.

APPLICATIONS

Sodium dodecyl sulfate (SDS), an anionic detergent, is widely used in molecular biology to lyse both eukaryotic and prokaryotic cells in the preparation of RNA and DNA. The following are examples of where 20% (w/v) Sodium Dodecyl Sulfate may be usefully employed :

- *RNA preparation: Mini Method*[3]
- *DNA preparation from cultured cells and tissue*[3]

QUALITY CONTROL

General

All QBI products for Molecular Biology are prepared according to standard published protocols[1, 2] or to formulations provided by customers. In addition, all products are subjected to a variety of quality control procedures, including pH and conductivity determinations, in order to validate that the test product is within its specifications.

Product Specific Testing

20% (w/v) Sodium Dodecyl Sulfate is routinely tested for the absence of DNase and RNase. Protocols are shown on the next page.

REFERENCES

1. Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989) *Molecular Cloning, A Laboratory Manual, 2nd Edition.* Cold Spring Harbor Laboratory Press.
2. Ausubel, F.M. et al., eds. (1993) *Current Protocols in Molecular Biology.* Greene Publishing Associates, Inc., in association with John Wiley & Sons, Inc.
3. Davis, L.G., Dibner, M.D. & Battey, J.F. (1986) *Basic Methods in Molecular Biology.* Elsevier Science Publishing Company, Inc.

Product Specific Testing Protocols

Deoxyribonuclease (DNase) Activity Testing

1. 20% (w/v) Sodium Dodecyl Sulfate is incubated at 37°C with 1.0 µg of pBR322 and *Pst I*-digested X174 DNA for 16-20 hours.
2. Subsequently, the test nucleic acids are subjected to agarose gel electrophoresis and SYBR® Green I staining.
3. The test DNA is evaluated relative to the untreated DNA (negative control) for degradation and changes in fragment size and/or banding pattern, which are both indicative of DNase activity.

Ribonuclease (RNase) Activity Testing

1. 20% (w/v) Sodium Dodecyl Sulfate is incubated at 37°C with prokaryotic MS2 ribosomal and eukaryotic 18S/28S ribosomal RNA substrates for 4 hours.
2. The test RNA is evaluated by non-denaturing agarose gel electrophoresis and SYBR® Green II staining.
3. The test RNA is evaluated relative to the untreated RNA (negative control) for broadening and smearing of the RNA banding, which are both indicative of RNase activity.

The test results of individual lots of 20% (w/v) Sodium Dodecyl Sulfate *are available upon request from Technical Services.*

RELATED PRODUCTS

10% (w/v) Sodium Dodecyl Sulfate (10% SDS)

Catalog #	351-032-721	4x100ml, 100ml
	351-032-101	500ml

DEPC Treated Water

Catalog #	351-068-721	4x100ml, 100ml
	351-068-101	500ml
	351-068-101CS	10x500ml
	351-068-131	1000ml
	351-068-131CS	10x1000ml
	351-068-491	4 Liter
	351-068-151	10 Liter
	351-068-161	20 Liter

Molecular Biology Grade (MBG) Water

Catalog #	351-029-721	4x100ml, 100ml
	351-029-101	500ml
	351-029-101CS	10x500ml
	351-029-131	1000ml
	351-029-131CS	10x1000ml
	351-029-491	4 Liter
	351-029-151	10 Liter
	351-029-161	20 Liter

All products sold by Quality Biological are intended for research use only. This product has not been approved for diagnostic or IVD use.

10/10/9613

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