



ISO 9001 CERTIFIED
ISO 13485 CERTIFIED

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CERTIFICATE OF QUALITY/CERTIFICATE OF ANALYSIS

Product: DL-DITHIOTHREITOL (DTT)
Grade: BIOTECHNOLOGY GRADE
Lot: 1190C168
Code: 0281
Appearance: White powder.
Mol. Formula: C4H10O2S2
Mol. Weight: 154.25
Description:

<u>Assay:</u>	<u>Min</u>	<u>Max</u>	<u>Actual</u>	<u>Units</u>	<u>Disposition</u>
Purity (-SH Content)	99.4		100.9	%	PASS
Abs.@283nm (0.02M, Water)		0.05	0.0306		PASS
Oxidized DTT		0.5	0.09	%	PASS
Melting Point	39	43	42.2	Degrees C	PASS
IR	PASS		PASS	P/F	PASS
Solubility (5%, Water)	PASS		PASS	P/F	PASS
Loss on Drying		0.5	0.01	%	PASS
Abs.@280nm (0.1M, Water)	REPORT		0.0218		PASS
Abs.@260nm (0.1M, Water)	REPORT		0.0267		PASS
Reassay Date	REPORT		06/25/13		PASS
DNase		NONE	NONE	P/F	PASS
RNase		NONE	NONE	P/F	PASS
Protease		NONE	NONE	P/F	PASS

Storage: Store frozen. Keep dry. Warm to room temperature before opening.

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This signature indicates that the above material has met all quality specifications and has been reviewed by a quality representative.

Signature: *Christi M. Perry*

Title: QC MANAGER Date: 9/22/2010

Form Number: QSWI F8.5-11.1 Revision: 0 Effective Date: 08/23/06

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