CALCULATION OF RESULTS

Average the duplicate OD readings for each standard and sample. Create a standard curve by reducing the data using computer software capable of generating a four-parameter logistic curve (4PLC) fit. The sample concentrations obtained should be multiplied by the dilution factor to obtain neat sample values.

Or use the online tool from MyAssays to calculate the data:

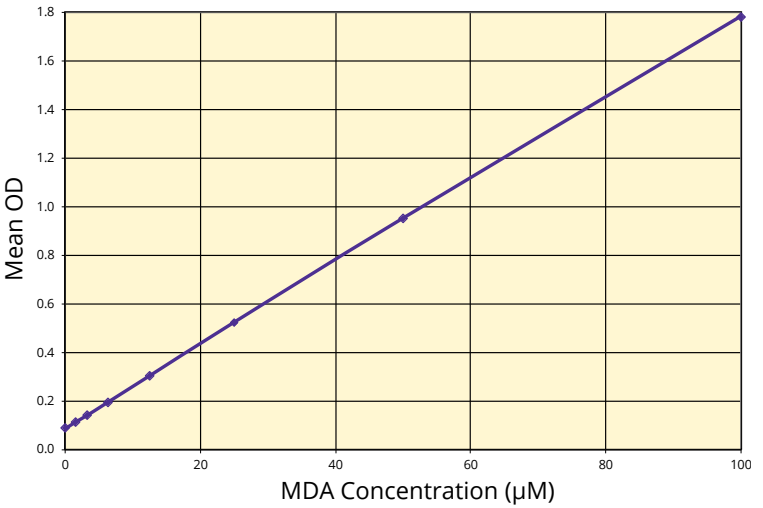
https://www.myassays.com/arbor-assays-detectx-tbars-mda-universal-colorimetric-detection-kit-k077.assay

TYPICAL DATA

Sample	Mean OD	TBARS/MDA Conc. (µM)
Zero	0.087	0
Standard 1	1.783	100
Standard 2	0.953	50
Standard 3	0.525	25
Standard 4	0.305	12.5
Standard 5	0.195	6.25
Standard 6	0.140	3.125
Standard 7	0.115	1.563
Sample 1	0.537	25.79
Sample 2	0.939	49.14

Always run your own standard curves for calculation of results. Do not use this data.

Typical Standard Curve



Always run your own standard curves for calculation of results. Do not use this data.

VALIDATION DATA

Sensitivity and Limit of Detection

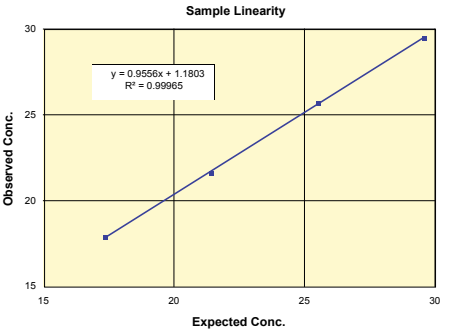
Sensitivity was calculated by comparing the ODs for twenty wells run for each of the zero and standard #7. The detection limit was determined at two (2) standard deviations from the zero along the standard curve. **Sensitivity was determined as 0.36 µM.**

The Limit of Detection was determined in a similar manner by comparing the ODs for twenty wells run for each of the zero and a low concentration sample. **The Limit of Detection was determined as 0.620 µM.**

Linearity

Linearity was determined by taking two rat serum samples with known MDA concentrations and mixing them in the ratios given below. The measured concentrations were compared to the expected values based on the ratios used.

High	Low	Expected Conc. (µM)	Observed Conc. (µM)	% Recovery
80%	20%	29.62	29.46	99.5
60%	40%	25.55	25.67	100.5
40%	60%	21.47	21.56	100.4
20%	80%	17.40	17.84	102.5
			Mean Recovery	**100.7%**



Intra Assay Precision

Three samples were run in replicates of 16 in an assay. The mean and precision of the calculated concentrations were:

Sample	MDA Conc. (µM)	%CV
1	23.5	12.9
2	48.9	3.5
3	67.1	12.7

Inter Assay Precision

Three samples were run in duplicate in 20 assays run over multiple days by several operators. The mean and precision of the calculated concentrations were:

Sample	MDA Conc. (µM)	%CV
1	23.4	13.8
2	48.3	4.5
3	68.3	11.6

LIMITED WARRANTY

Arbor Assays warrants that at the time of shipment this product is free from defects in materials and workmanship. This warranty is in lieu of any other warranty expressed or implied, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose.

We must be notified of any breach of this warranty within 48 hours of receipt of the product. No claim shall be honored if we are not notified within this time period, or if the product has been stored in any way other than outlined in this publication. The sole and exclusive remedy of the customer for any liability based upon this warranty is limited to the replacement of the product, or refund of the invoice price of the goods.

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OFFICIAL SUPPLIER TO ISWE

Arbor Assays and the International Society of Wildlife Endocrinology (ISWE) signed an exclusive agreement for Arbor Assays to supply ISWE members with assay kits and reagents for wildlife conservation research.

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