

Title: NIST SRM1950 Customer Feedback Survey

Version: B. Prospective Users

OMB Control #0693-0033

Expiration Date: 9/30/2025

NIST Generic Clearance for Program Evaluation Data Collections

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0693-0033. Without this approval, we could not conduct this survey/information collection. Public reporting for this information collection is estimated to be approximately 10 minutes/hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National Institute of Standards and Technology at: 100 Bureau Drive, Gaithersburg, MD 20899, Attn: Yee-Yin Choong, yee-yin.choong@nist.gov.

Survey Landing page:



NIST SRM1950 Customer Feedback Survey

The National Institute of Standards and Technology (NIST) [SRM1950](#) Metabolites in Frozen Human Plasma was first made available in 2011 and has been widely used by researchers and scientists in the metabolomic and lipidomic communities and beyond. NIST will be renewing SRM1950 and/or developing new reference materials in the coming years, a process that typically takes 5-7 years. We are conducting an information gathering survey with existing and prospective users to collect feedback on their experiences with SRM1950. The survey results will help NIST devise future reference material formulations to fulfill user needs and continue to support the metabolomic and lipidomic communities.

Feedback from SRM1950 customers and the clinical chemistry, metabolomic and lipidomic communities are important to this endeavor. We hope you will play a part in SRM1950's succession and encourage colleagues and other scientists to participate as well. Please copy and share the [survey link](#) widely. We appreciate your assistance and your time.

This survey takes approximately 10 minutes.

If you are a purchasing official or reseller/distributor of NIST SRM1950, please help forward the [survey link](#) to your group members or customers.

The NIST SRM1950 survey team would like to express our gratitude to the Metabolomics Quality Assurance and Quality Control Consortium (mQACC) Best Practices QA/QC task group for their inspiration on some of the survey questions.

[Click](#) for additional information about this survey.

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Next

NOTE:

1. If respondents click the hyperlink "SRM1950", the SRM1950 certificate of analysis will be displayed in a new window (<https://tsapps.nist.gov/srmext/certificates/1950.pdf>).
2. If respondents click the "Click for additional information about this survey", the study's information sheet (attached) will be display in a new window.
3. If respondents click the "survey link", it will allow respondents to copy the link to forward to other participants.

Only this first question is required.

* Has your organization used NIST SRM1950?

Yes – **current user** of SRM1950

Yes – **used** SRM1950 before, but not currently

No, but my laboratory is **interested** in SRM1950

No, my laboratory is **not interested** in SRM1950

No, my organization is a reseller/distributor of SRM1950

Back

Next

NOTE:

1. Version A: If the answer is “Yes – current user of SRM1950” or “Yes – used SRM1950 before, but not currently.”
2. **Version B:** If the answer is “No, but my laboratory is interested in SRM1950.”
3. Version C: If the answer is “No, my laboratory is not interested in SRM1950.”
4. Version D: If the answer is “No, my organization is a reseller/distributor of SRM1950.”

Where is your laboratory located?

United States (US)

Non-US, please specify your country:

What is the reason(s) that your laboratory does not use SRM 1950? (check all that apply)

Difficult to access/purchase

Not knowing how to purchase

Cost

Lack of desired analyte-specific certified values

Time required for analysis

I use other reference materials in my work.

I am not aware of this reference material.

Other, please specify:

Which of the following best describe(s) your laboratory? (check all that apply)

Academic laboratory: Metabolomics Service Core Facility

Academic laboratory: Research and Development

Clinical research institute

Federal Government laboratory

Local Government laboratory

In Vitro Diagnostic Manufacturer laboratory

Industry: Biotechnology

Industry: Food/Nutrition laboratory

Industry: Instrument vendor

Industry: Metabolomics Service Company

Industry: Pharmaceutical laboratory

Reference testing laboratory

Other, please specify:

Next

Which of the following best describe(s) your role? (check all that apply)

- Management
- Principal Investigator
- Project Lead
- Researcher/Scientist
- Technician
- Trainee: graduate student, postdoctoral fellow
- Other, please specify:

Which of the following best describe(s) your research area or interest? (check all that apply)

- Bioanalysis
- Clinical analysis
- Lipidomics
- Metabolomics
- Proteomics
- Other, please specify:

Back

Next

If your laboratory would purchase SRM1950, for what **purpose(s)** will your laboratory use it? (check all that apply)

- Calibration
- Comparability: Inter-study (across studies)
- Comparability: Inter-laboratory (across laboratories)
- Identification
- Instrument benchmarking/System suitability test
- Method development/optimization
- Method validation
- Normalization
- Precision: Intra-study (within study)
- Quantitation
- Other, please specify:

Back

Next

[SRM1950](#) currently provides values of 90 analytes in the following 10 classes.

Which **class(es)** of these analytes has your laboratory used? (check all that apply)

Subsequently, for analytes under each class, we will ask their importance to your work.

- Cholesterol and Glycerides**
- Fatty Acids**
- Amino Acids**
- Fat-soluble Vitamins and Carotenoids**
- Water-soluble Vitamins**
- Organic Clinical Markers**
- Inorganic Clinical Markers**
- Hormones** (e.g., steroid hormones)
- Proteins**
- Perfluorinated Compounds (PFCs)**
- None of the above.** I do not use assigned values provided in SRM1950 Certificate of Analysis.

Are there other classes (not provided in current SRM1950) that you use for your work? Please specify:

Back

Next

Cholesterol and Glycerides

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Cholesterol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total Glycerides (as triolein)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Fatty Acids

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
C12:0 Dodecanoic Acid (Lauric Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C14:0 Tetradecanoic Acid (Myristic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C14:1 (Z) -9-Tetradecenoic Acid (Myristoleic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C15:0 Pentadecanoic Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C16:0 Hexadecanoic Acid (Palmitic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C16:1 n-7 (Z) -9-Hexadecenoic Acid (Palmitoleic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C17:0 Heptadecanoic Acid (Margaric Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
C18:0 Octadecanoic Acid (Stearic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C18:1 n-7 (Z) -11-Octadecenoic Acid (Vaccenic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C18:1 n-9 (Z) -9-Octadecenoic Acid (Oleic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C18:2 n-6 (Z,Z) -9,12-Octadecadienoic Acid (Linoleic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C18:3 n-3 (Z,Z,Z) -9,12,15-Octadecatrienoic Acid (α -Linolenic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C18:3 n-6 (Z,Z,Z) -6,9,12-Octadecatrienoic Acid (γ -Linolenic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C20:0 Eicosanoic Acid (Arachidic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
C20:1 (Z)-11-Eicosenoic Acid (Gondolic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C20:2 (Z,Z)-1,14-Eicosadienoic Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C20:3 n-6 (Z,Z,Z)-8,11,14-Eicosatrienoic Acid (Dihomo- γ -Linolenic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C20:4 n-6 (Z,Z,Z,Z)-5,8,11,14-Eicosatetraenoic Acid (Arachidonic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C20:5 n-3 (Z,Z,Z,Z,Z)-5,8,11,14,17-Eicosapentaenoic Acid (EPA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C22:0 Docosanoic Acid (Behenic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C22:1 (Z)-13-Docosenoic Acid (Erucic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
C22:4 n-6 (Z,Z,Z,Z)-7,10,13,16-Docosatetraenoic Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C22:5 n-3 (Z,Z,Z,Z,Z)-7,10,13,16,19-Docosapentaenoic Acid (DPA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C22:5 n-6 (Z,Z,Z,Z,Z)-4,7,10,13,16-Docosapentaenoic Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C22:6 n-3 (Z,Z,Z,Z,Z,Z)-4,7,10,13,16,19-Docosahexaenoic Acid (DHA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C24:0 Tetracosanoic Acid (Lignoceric Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C24:1 (Z)-15-Tetracosenoic Acid (Nervonic Acid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Amino Acids

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Arginine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alanine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cysteine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cystine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glycine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Histidine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Isoleucine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leucine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lysine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Methionine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phenylalanine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Serine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Threonine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tyrosine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Valine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Fat-soluble Vitamins and Carotenoids

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Retinol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
α-Tocopherol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
γ- + β-Tocopherol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lutein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zeaxanthin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
β-Cryptoxanthin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total α-Carotene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total β-Carotene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25-Hydroxyvitamin D ₂	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25-Hydroxyvitamin D ₃	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
<i>Trans</i> -Lycopene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total Lycopene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Trans</i> -β-Carotene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Cis</i> -β-Carotene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Water-soluble Vitamins

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Folic acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total folate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4-Pyridoxic acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5-Methyltetrahydrofolate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyridoxal 5'-phosphate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Organic Clinical Markers

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Bilirubin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creatinine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Homocysteine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glucose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uric Acid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Inorganic Clinical Markers

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Calcium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Magnesium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potassium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sodium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Copper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selenium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Hormones (e.g., steroid hormones)

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Cortisol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Progesterone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Testosterone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Proteins

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Seleno-Albumin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glutathione Peroxidase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selenoprotein P	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total Protein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vitamin D-Binding Protein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

Perfluorinated Compounds (PFCs)

For the value currently assigned in SRM1950 for each analyte, how **important** will it be to your work?

	Do Not Use 0	Somewhat Important 1	Very Important 2	Essential 3
Perfluorooctanoic Acid (PFOA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perfluorononanoic Acid (PFNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perfluorodecanoic Acid (PFDA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perfluoroundecanoic Acid (PFUnA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perfluorohexansulfonate (PFHxS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perfluorooctanesulfonic Acid (PFOS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there other analytes in this class that will be important to your work? Please specify:

Back

Next

A unit of current SRM1950 consists of five vials, each containing approximately 1.0 mL of plasma intended for one-time use.

If SRM1950 will be renewed, will the **same** volume of **1.0 mL** plasma per vial meet your needs?

Yes

No, please specify preferred amount per vial in **mL**:

The current SRM1950 contains **lithium heparin** as the anticoagulant.

If SRM1950 will be renewed, will the **same** anticoagulant meet your needs?

Yes

No, please specify preferred **anticoagulant**:

The source for current SRM1950 was plasma obtained from 100 individuals with an equal number of men and women in age range of 40-50 years (details of the sample pool demographics can be found in the [SRM1950 Certificate of Analysis](#)).

If SRM1950 will be renewed, will a **similar** sample pool meet your needs?

Yes

No, please specify **other demographics** you would prefer:

Back

Next

NIST currently provides various types of materials intended to be used as measurement standards. We want to get your feedback on two types below (as defined in [NISTSP 260-136](#)):

- **NIST Reference Materials (RM):** RMs only possess non-certified values and are accompanied by a NIST Reference Material Information Sheet. RMs are materials that are sufficiently homogeneous and stable with respect to one or more specified properties established by NIST in a measurement process.
- **NIST Standard Reference Materials (SRM):** SRM1950 is a NIST Standard Reference Material. SRMs are accompanied by a NIST Certificate or Certificate of Analysis. SRMs are materials that are characterized by a metrologically valid and traceable procedure for one or more specified properties. The certificate provides the value of the specified property, its associated uncertainty, and a statement of metrological traceability.

Based on the above definitions and your needs, if NIST develops new materials for metabolomics, what would you prefer them to be?

Reference Materials (RMs)

Standard Reference Materials (SRMs)

Both RMs and SRMs

It doesn't matter to my work.

I don't know the difference between RMs and SRMs.

Back

Next

Page 18: [only show this page if “Reference Materials (RMs)” OR “Standard Reference Materials (SRMs)” OR “Both RMs and SRMs” is checked in Page 17; the text in quotation marks will be dynamically determined based on the selection]



Please explain why you chose "Both RMs and SRMs."

Back

Next

What **characteristics** are important to you when selecting future reference materials for your work? (check all that apply)

- Assigned values for specific analytes
(provided in Certificate of Analysis for SRMs, or Information Sheet for RMs)
- Availability
- Cost
- Homogeneity
- Matrix (e.g., plasma, serum)
- Measurement Uncertainty
- Stability
- Traceability to SI unit for purpose of quantitation
- Other, please specify.

Back



Next

May NIST contact you for further discussion on your experience with SRM1950 or other reference materials?

If "Yes," please provide contact information. We will not share your contact information outside of the NIST research team.

Name (First/Last):

Email:

Laboratory/Affiliation:

Please share any additional thoughts. Thank you!

[Back](#)

[Submit](#)



Thank you for taking this survey.

If you have any questions about this study, please contact Yee-Yin Choong at yee-yin.choong@nist.gov.