



Budget Justification Templates for Lab Equipment & Software

Ready-to-use language for NIH, NSF, and DOD proposals.

HOW TO USE THIS GUIDE

Purpose and Structure

This guide provides fill-in-the-blank budget justification language for three federal funding agencies (NIH, NSF, and DOD) plus a template for internal budget requests at academic and commercial organizations.

All Freezerworks product details are pre-written. You only fill in the bracketed placeholders that are specific to your institution, project, and grant.

What You'll Need to Fill In

PLACEHOLDER	WHAT TO INSERT
[INSTITUTION NAME]	Your university or research organization.
[PI NAME]	Principal investigator's full name.
[GRANT MECHANISM]	e.g., R01, R21, MRI, DURIP
[SPECIFIC AIM]	The research aim this tool directly supports.
[COST]	Confirm with Freezerworks sales and your grants office.
[SPECIFIC AIM]	The research aim this tool directly supports.
[NUMBER]	Specific quantities: specimens, sites, freezers, users, etc.
[SERVER/WORKSTATION]	Your institutional server or workstation where Freezerworks will be installed.
[DEPARTMENT OR CORE FACILITY]	The unit that will administer Freezerworks.

Tip: Budget justifications are reviewed for specificity. Vague language (e.g., "this software will help the lab") weakens your case. Tie every claim to a specific aim, method, or compliance requirement.

Before submitting: Confirm all cost figures, version details, and institutional policies with your grants office. Templates provide structure and suggested language. They do not replace review by your sponsored programs office.

TEMPLATE 01 — NIH

NIH Budget Justification

Use this template when requesting software or equipment as a line item in an NIH research grant (e.g., R01, R21, R03, U01, P01). NIH reviewers evaluate whether the requested item is essential to the proposed research and whether the cost is reasonable.

Equipment/Software Description

Freezerworks is an on-premise sample management and freezer inventory tracking system developed by Dataworks Development, Inc. (freezerworks.com). It offers barcode-driven sample identification, automated audit trails with timestamps and user IDs, dynamic freezer mapping, chain-of-custody documentation, and configurable data fields for study-specific metadata.

Freezerworks will be deployed on-premise at [INSTITUTION NAME] on [SERVER/WORKSTATION] and administered by [DEPARTMENT OR CORE FACILITY]. The total cost for [perpetual license / annual subscription] is [COST, confirm with Freezerworks sales and grants office].

Tip: NIH classifies equipment as items costing \$5,000 or more with a useful life of one year or more. Check your institution's threshold, which may be lower. Software licenses may fall under 'Other Direct Costs' depending on cost and structure.

Justification of Need

The proposed research under [SPECIFIC AIM NUMBER AND TITLE] requires [DESCRIBE THE CAPABILITY NEEDED, e.g., systematic tracking of biological specimens across multiple freezer units, with chain-of-custody documentation]. Currently, [DESCRIBE CURRENT METHOD AND ITS LIMITATIONS, e.g., sample tracking is performed manually using spreadsheets, which introduces transcription errors and cannot support audit trail requirements for [REGULATORY STANDARD]].

Freezerworks directly addresses this gap by providing [select the capabilities relevant to your project]:

- Barcode and RFID-driven sample identification
- Automated audit trails with timestamps, user IDs, and transaction records
- Dynamic freezer mapping across [NUMBER] storage units and [NUMBER] locations
- Chain-of-custody documentation for every sample transaction
- Configurable data fields for study-specific metadata
- Multi-site inventory management with role-based user permissions
- Compliance support for 21 CFR Part 11, ISBER, and ISO 20387

Without Freezerworks, the research team would be unable to [DESCRIBE SPECIFIC CONSEQUENCE, e.g., maintain specimen integrity documentation required for [REGULATORY BODY] compliance, increasing the risk of data loss during the [SAMPLE TYPE] processing described in Aim [NUMBER]].

Adequacy of Existing Resources

[INSTITUTION NAME] does not currently have access to a sample management system that meets the requirements of this project. [DESCRIBE WHAT EXISTS AND WHY IT IS INSUFFICIENT, e.g., The PI's laboratory currently uses spreadsheets for sample tracking. This approach does not support automated audit trails, barcode-driven identification, or multi-user chain-of-custody documentation, which are essential for [SPECIFIC AIM OR COMPLIANCE NEED]].

The [DEPARTMENT/CORE FACILITY] has confirmed that no shared institutional resource provides equivalent functionality.

Tip: Reviewers look for evidence that you explored alternatives. Naming what you currently use and why it falls short is more persuasive than simply stating a need.

TEMPLATE 02 — NSF

NSF Budget Justification

Use this template when requesting software or equipment within an NSF proposal (e.g., standard research grants, MRI, CCRI). NSF reviewers assess whether the item is essential to the project's objectives and whether the budget is reasonable.

Equipment/Software Description

Funds are requested for Freezerworks, an on-premise sample management and freezer inventory tracking system provided by Dataworks Development, Inc. The software will be installed at [INSTITUTION NAME] and maintained by [RESPONSIBLE PARTY, e.g., the PI's research group / IT department/core facility]. The requested amount is [COST, confirm with Freezerworks sales and grants office] for [perpetual site license / multi-year subscription].

Justification for the Proposed Project

Freezerworks is required to support [PROJECT OBJECTIVE OR TASK, e.g., Objective 2: Develop a longitudinal tracking system for [SAMPLE TYPE] collected across [NUMBER] field sites].

The proposed project involves [DESCRIBE DATA/SAMPLE MANAGEMENT CHALLENGE, e.g., collection and long-term storage of [NUMBER] specimens across [NUMBER] sites over [DURATION], requiring chain-of-custody documentation and regulatory-compliant audit trails]. Freezerworks provides [select relevant capabilities]:

- Multi-site inventory tracking with location-level precision
- Configurable user permissions by research group
- Automated storage capacity monitoring
- Barcode-driven sample identification and retrieval
- Full audit trail for every sample transaction

No equivalent tool is available in [INSTITUTION NAME]'s existing infrastructure. [DESCRIBE WHAT EXISTS AND WHY IT FALLS SHORT, e.g., Current sample tracking uses spreadsheets, which lack audit trail functionality and cannot scale to the [NUMBER]-specimen volume proposed in this project].

Tip: NSF budget justifications should be direct and factual. Avoid promotional language. State what the tool does, why the project requires it, and why alternatives are insufficient.

Broader Impacts (if applicable)

Freezerworks will also support [BROADER IMPACT, e.g., training of [NUMBER] graduate students in standardized sample management practices / a shared institutional resource available to [NUMBER] research groups across [DEPARTMENTS]]. By establishing a centralized sample management system, this project contributes to research infrastructure that extends beyond the proposed work.

TEMPLATE 03 — DOD

DOD Budget Justification

Use this template when requesting equipment within a DOD-funded proposal, including DURIP (Defense University Research Instrumentation Program), MURI, or other DOD research programs. DOD reviewers evaluate mission relevance, multi-user benefit, and institutional commitment.

Equipment/Software Description

Freezerworks is an on-premise sample management and freezer inventory tracking system provided by Dataworks Development, Inc. The system will be deployed at [INSTITUTION NAME] within [DEPARTMENT/FACILITY] and will serve [NUMBER] active research groups. The requested funding is [COST, confirm with Freezerworks sales and grants office].

Relevance to DOD Research Mission

The requested instrumentation directly supports research in [DOD-RELEVANT RESEARCH AREA, e.g., biological threat detection, advanced materials characterization, expeditionary medical logistics] under [SPONSORING PROGRAM/AGENCY, e.g., ARO, ONR, AFOSR, DARPA].

[DESCRIBE THE SPECIFIC RESEARCH PROGRAMS THIS SUPPORTS, e.g., PI [NAME]'s ARO-funded program on [TOPIC] (Award No. [NUMBER]) requires barcode-driven sample tracking and chain-of-custody documentation to [SPECIFIC RESEARCH ACTIVITY]. PI [NAME]'s ONR-funded project on [TOPIC] (Award No. [NUMBER]) requires multi-site inventory management for [SPECIFIC RESEARCH ACTIVITY]].

Without Freezerworks, these research programs cannot [DESCRIBE SPECIFIC LIMITATION, e.g., maintain the specimen chain-of-custody documentation required by [DOD STANDARD] or scale beyond the current [NUMBER]-sample manual tracking process].

Tip: DURIP proposals require you to name specific funded research programs (with award numbers) that the requested equipment will support. Generic descriptions of research areas are not sufficient.

Multi-User and Institutional Benefit

Freezerworks will serve as a shared resource for [NUMBER] investigators across [NUMBER] departments at [INSTITUTION NAME]. Current users include:

- [PI NAME, DEPARTMENT, RESEARCH AREA, DOD AWARD if applicable]
- [PI NAME, DEPARTMENT, RESEARCH AREA, DOD AWARD if applicable]
- [PI NAME, DEPARTMENT, RESEARCH AREA, DOD AWARD if applicable]

[INSTITUTION NAME] will provide [INSTITUTIONAL COMMITMENT, e.g., dedicated server infrastructure, IT support staff at [FTE LEVEL], physical space in [FACILITY], and ongoing maintenance funding through [SOURCE]].

TEMPLATE 04 — INTERNAL BUDGET REQUEST

Internal Budget Request

Use this template when requesting funding through an internal equipment competition, departmental discretionary funds, bridge funding, or a commercial lab's annual budget cycle. Internal reviewers typically evaluate operational need, shared benefit, and cost justification rather than scientific methodology.

For Academic Institutions: Equipment Competition or Discretionary Fund Request

Request Summary

I am requesting [AMOUNT] from [FUND NAME / EQUIPMENT COMPETITION / DISCRETIONARY FUND] to acquire Freezerworks, an on-premise sample management system, for [LAB NAME / DEPARTMENT / CORE FACILITY].

Current State

[DESCRIBE YOUR CURRENT SAMPLE TRACKING METHOD AND ITS LIMITATIONS, e.g., Our lab currently tracks [NUMBER] specimens using spreadsheets maintained by [NUMBER] personnel. This method has resulted in [DESCRIBE SPECIFIC PROBLEMS: lost samples, audit findings, delayed experiments, inability to locate specimens for collaborators, version control failures across multiple users]].

Proposed Solution

Freezerworks provides barcode-driven sample identification, automated audit trails, chain-of-custody documentation, and dynamic freezer mapping. It will serve [NUMBER] investigators across [DEPARTMENT/COLLEGE/CORE] and support [NUMBER] active research protocols.

Shared-Use Benefit

This system will be available to the following investigators and groups:

- [PI NAME, DEPARTMENT, RESEARCH FOCUS]
- [PI NAME, DEPARTMENT, RESEARCH FOCUS]
- [PI NAME, DEPARTMENT, RESEARCH FOCUS]

Impact on External Funding

This acquisition directly supports [GRANT NAME / PENDING PROPOSAL] and strengthens our competitiveness for [FUTURE FUNDING TARGET, e.g., an NIH R01 renewal, a new P30 center grant, or a DOD contract]. Improved sample management infrastructure is increasingly expected by federal reviewers evaluating data management plans and research rigor.

Cost

[AMOUNT] for [LICENSING TERM].

[If applicable: Matching funds of [AMOUNT] are committed from [SOURCE].]

Tip: Internal equipment competitions typically prioritize shared-use tools. Framing Freezerworks as a resource serving multiple investigators or an entire core facility strengthens the request significantly.

For Commercial Laboratories: Internal Budget Request

Request Summary

I am requesting approval for Freezerworks, an on-premise sample management system, at an annual cost of [AMOUNT] for [DEPARTMENT / FACILITY / SITE]. This request is for [CapEx / OpEx, confirm with finance before submitting].

Current State and Operational Cost

[DESCRIBE YOUR CURRENT TRACKING PROCESS, e.g., Sample tracking is currently performed using [METHOD: spreadsheets/paper logs/a legacy system]. This process requires approximately [NUMBER] labor hours per [WEEK/MONTH] across [NUMBER] staff members for manual data entry, specimen location searches, and audit preparation.]

Estimated Annual Cost of Current Process:

- Labor: [NUMBER] hours/month x [HOURLY COST] = [ANNUAL LABOR COST]
- Error-related costs (repeated assays, delayed experiments, discrepancies): [ESTIMATED ANNUAL COST]
- Audit preparation time: [ESTIMATED ANNUAL COST]
- Total estimated annual cost of current state: [TOTAL]

Proposed Solution and Cost

Freezerworks provides barcode-driven sample identification, automated audit trails, chain-of-custody documentation, dynamic freezer mapping, and role-based user permissions. It is deployed on-premise, avoiding recurring cloud infrastructure costs and data sovereignty concerns.

Annual Freezerworks licensing cost: [AMOUNT, confirm with Freezerworks Account Executive].

Return on investment

Based on the cost comparison above, Freezerworks is expected to reduce annual sample management costs by [ESTIMATED SAVINGS] through [LIST PRIMARY DRIVERS, e.g., reduced manual data entry, faster specimen retrieval, fewer repeated assays, and streamlined audit preparation]. The investment is projected to pay back within [TIMEFRAME].

Who Benefits

Freezerworks will be used by [NUMBER] staff across [DEPARTMENTS / SITES / TEAMS]. Additional groups that benefit include [LIST, e.g., QA/QC, regulatory affairs, operations management].

Risk of Not Acting

[DESCRIBE WHAT HAPPENS IF THE CURRENT PROCESS CONTINUES, e.g., As sample volumes grow from [CURRENT] to [PROJECTED], the current manual process will require additional headcount, increase error rates, and create compliance exposure during [REGULATORY AUDITS / CLIENT AUDITS / INTERNAL REVIEWS]].

Tip: Finance teams respond to numbers. Calculate the actual labor cost of your current tracking process before submitting. Even a rough estimate is more persuasive than a qualitative argument about efficiency.

BEST PRACTICES

Writing Tips and Common Mistakes

1. Tie every item to a specific aim or objective.

Explain how Freezerworks supports the proposed work rather than making general efficiency claims.

2. State what you currently use and why it falls short.

Strong justifications show why existing tools do not provide the tracking, controls, or documentation the research requires.

3. Confirm Freezerworks costs with your grants office before submission.

Quotes may not include installation, training, or other allowable charges. Contact Freezerworks sales at sales@freezerworks.com or 1-877-289-7960 for a current quote for your proposal.

4. Address compliance requirements explicitly.

If your research involves regulated specimens, identify the applicable regulation and explain how Freezerworks supports compliance. Freezerworks supports 21 CFR Part 11 electronic records and signatures, aligns with ISBER best practices, and supports ISO 20387 biobanking standards. Specify the regulation that applies to your study.

5. Use specific quantities.

Replace vague terms with clear numbers to show project scope and planning.

6. For internal requests, calculate the cost of doing nothing.

Internal reviewers and finance teams are persuaded by comparisons, not capability descriptions. Show the labor hours, error rates, and audit preparation time required by the current manual process, then compare those costs with the annual Freezerworks license. The ROI argument is almost always stronger than a feature-based argument.

Common Mistakes to Avoid

MISTAKE	WHY IT HURTS
Using promotional language.	Budget justifications are not marketing copy. Avoid superlatives, brand taglines, or language sourced from a vendor's website. Write as a researcher.
Failing to justify ongoing costs.	If the software requires an annual subscription, explain how costs will be covered after the grant period ends.
Omitting the "no alternative" statement.	All three agencies expect you to address why existing institutional resources do not meet the need.
Requesting a tool without tying it to methods.	Equipment disconnected from your methodology is easy to cut during budget negotiations.
Submitting an internal request without cost comparison.	Finance teams and internal reviewers need to see what the current process costs before they can evaluate whether the software is worth the investment.

About Freezerworks

Since 1987, Dataworks Development has continuously developed Freezerworks for scientists, without changing ownership or shifting to another market. Guided by customer needs, Freezerworks supports 293 active databases and includes barcode-driven sample identification, automated audit trails, chain-of-custody documentation, dynamic freezer mapping, and configurable data fields.

It has served biobanks, research institutions, clinical organizations, and pharmaceutical companies since 1987, with some customer relationships dating back to 1992.

To request a quote or schedule a demo:

www.freezerworks.com/get-demo | sales@freezerworks.com | 1-877-289-7960

***Disclaimer:** This guide provides template language for budget justification drafting purposes only. It does not constitute grant writing advice, legal guidance, or guarantee of funding. All proposals should be reviewed by your institution's sponsored programs or grants administration office before submission. Agency requirements change periodically; verify current guidelines at grants.nih.gov, nsf.gov, and the relevant DOD program announcement.*