

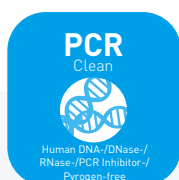
Low Binding Microcentrifuge Tubes

Minimal valuable samples loss

Gene therapy and vaccine production often involve various types of purification for proteins, DNA, and other substances. Since nonspecific binding to plastic containers will lead to the loss of valuable samples, the purification processes often depend on high-quality plastic products for sample processing and storage. The smaller the sample volume is, the more important it becomes to reduce the binding between the sample and the container used.

The low binding microcentrifuge tubes of GVS is optimized for protein and DNA analytics. These tubes are made using a unique high-purity polypropylene polymer material that does not require any surface coating, such as siliconization. Strict quality control is implemented in accordance with ISO9001 and ISO13485. The stable quality ensuring significantly reduces binding between samples and plastic surface, minimizing sample loss and achieving a maximum recovery rate of your precious samples and more accurate analysis results.

- **Material:** Polypropylene (PP), conforming to USP Class VI standards
- **Capacity:** 0.5 mL, 1.5 mL and 2.0 mL

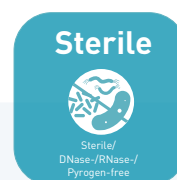


Cleanliness Test Standard for GVS PCR

GVS offers top quality consumables that have successfully passed the PCR clean test. These consumables are specifically designed for nucleic acid-related test operations, including nucleic acid extraction, purification, PCR, qPCR, and more.

The products passing PCR clean test meet the following standards:

- | | |
|----------------------|------------------------------|
| ✓ Human DNA-free | ✓ DNase/RNase-free |
| ✓ PCR inhibitor-free | ✓ Non-pyrogenic/No endotoxin |



Standard for Sterility Quality Test

To minimize the influence of consumable contamination and adhere to strict analysis standards, GVS has implemented stringent sterility quality test standards. These standards encompass the production conditions, ensuring high cleanliness, as well as sterilization processes. This comprehensive approach strikes for optimal sterility levels, satisfies the most demanding analysis requirements.

The products passing sterility quality test meet the following standards:

- | | | |
|----------------------|------------------------------|--------------------|
| ✓ Sterile | ✓ Human DNA-free | ✓ DNase/RNase-free |
| ✓ PCR inhibitor-free | ✓ Non-pyrogenic/No endotoxin | |

Quality Assurance

The sterility level meets the requirements of ISO11137, SAL < 10⁻⁶; pyrogen/endotoxin < 0.03 EU/mL; Human DNA < 0.03 pg/μL; DNase < 1×10⁻⁶ Kunitz units; RNase < 1×10⁻⁹ Kunitz units; PCR inhibitor ≤ 2 cycle offsets.

Applications

- Preparation and storage of proteins, peptides, or antibodies
- Storage of virus to prevent viral titer reduction
- Storage of cell suspension
- Enzyme catalysis test
- DNA and RNA sample preparation and storage

Features

1. Selected special raw materials

- Made of special high-purity polypropylene (PP) polymer with stable product performance
- High-transparency PP tube body for easy capacity and scale observation
- Working temperature range: -80°C~121°C (no deformation after autoclaving with open lid)

2. Excellent low protein/low nucleic acid binding

- Special materials can effectively reduce the nonspecific binding of protein/nucleic acid to the tube surface.
- No surface coating (e.g., silicification) on the tube wall can reduce sample binding and interference to samples.
- Samples of different proteins and nucleic acids can be ensured to the maximum recovery, with a recovery rate over 90%.

3. Ingenious design

- Lid lock prevents accidental opening of cap and evaporation of samples during long-term storage, and ensures operating safety.
- Smooth and transparent tube body with clear graduation, designed with a frosted writing area, makes it convenient for recording.
- Resealable bag packing (50 per bag) to reduce the risk of contamination.

4. Rigorous performance test

- The product has been tested for 18 items, including tightness, folding resistance of flipped cap, centrifugal force, solvent resistance, extractable and accelerated aging, which shows stable performance.
- The maximum centrifugal force for 1.5 mL, 2 mL is RCF 25,000 xg; the maximum centrifugal force for 0.5 mL is RCF 30,000 xg.
- Available in sterilized or non-sterilized, sterilized by irradiation, SAL 10⁻⁶
- DNase/RNase-free, Non-pyrogenic, human DNA-free, PCR inhibitor-free

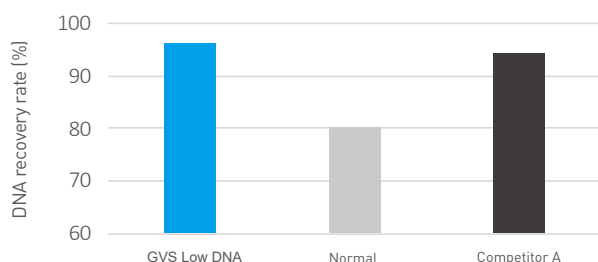


Note:

1. This product is not recommended for long-term sample storage for samples containing benzene, benzyl alcohol, or chloroform solvents.
2. Re-autoclaving of sterilized low binding microcentrifuge tubes may result in yellowing of the materials but does not affect the usage for the products.
3. The package can be removed and opened for autoclaving sterilization for one time. Repeated autoclaving sterilization is not recommended.

Comparison Test Results of Typical Nucleic Acid Recovery

Low DNA Microcentrifuge Tube - Minimal nucleic acid samples loss

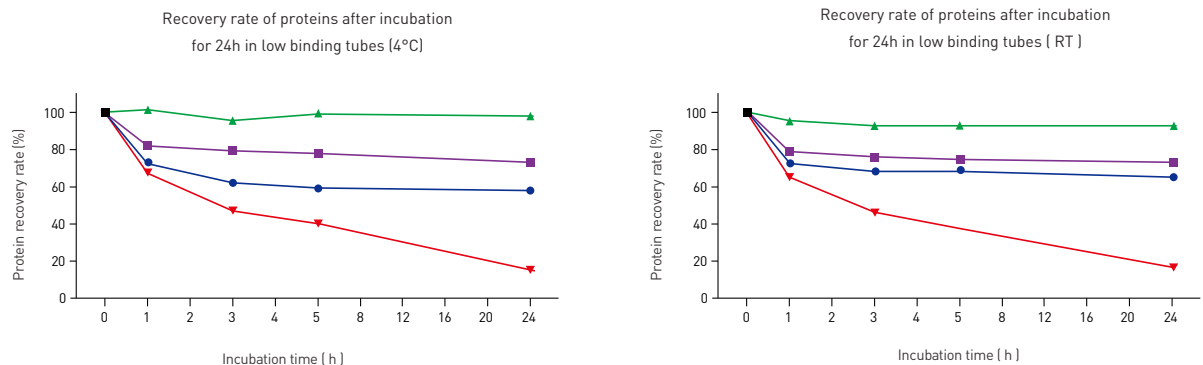


Microcentrifuge tubes from different suppliers are used, with 10 in a group, to fill an equal volume of 150 µL (0.1 ng/µL) of DNA solution diluted with DNA diluent, and incubated at 37°C for 24 h. The DNA recovery rate was determined by real-time PCR technology.

The Low DNA microcentrifuge tube of GVS has a high recovery rate for nucleic acid samples and can minimize the loss of nucleic acid samples.

Comparison Test Results of Typical Protein Recovery

Low Protein Microcentrifuge Tubes - Minimal protein samples loss



Microcentrifuge tubes from different suppliers are used to fill an equal volume of 1 µg/mL FITC-IgG protein solution, and stored in the dark at room temperature and 4°C. Measure the fluorescence values at 1 h, 3 h, 5 h, and 24 h, and calculate the average recovery rate (n = 6). The Low Protein microcentrifuge tube of GVS has a higher recovery rate for protein samples and can minimize the loss of protein samples.

Ordering information

Product Code	Low Binding	Capacity(mL)	Maximum RCF (xg)	Sterile	Qty. Per Bag/Case
CELCUJGLP0005N	Protein	0.5	30,000	No	50/400
CELCUJGLD0005N	DNA	0.5	30,000	No	50/1200
CELCUJGLP0015N	Protein	1.5	25,000	No	50/400
CELCUJGLD0015N	DNA	1.5	25,000	No	50/1000
CELCUJGLP0020N	Protein	2.0	25,000	No	50/400
CELCUJGLD0020N	DNA	2.0	25,000	No	50/1000
CELCUJGLP1005S	Protein	0.5	30,000	Yes	50/400
CELCUJGLD1005S	DNA	0.5	30,000	Yes	50/1200
CELCUJGLP1015S	Protein	1.5	25,000	Yes	50/400
CELCUJGLD1015S	DNA	1.5	25,000	Yes	50/1000
CELCUJGLP1020S	Protein	2.0	25,000	Yes	50/400
CELCUJGLD1020S	DNA	2.0	25,000	Yes	50/1000

