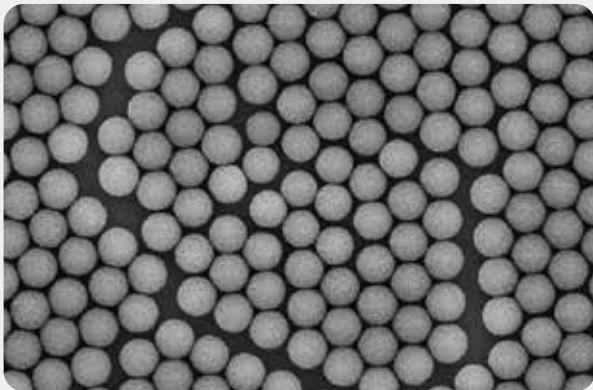


Magnetic Microspheres for Single Cell Sequencing



VDO Biotech's magnetic microspheres have superparamagnetism, moderate magnetic content, excellent resuspension and fast magnetic response speed. The magnetic microspheres are coated with carboxyl/streptavidin, which can efficiently bind aminated derivatives/biotinylated derivatives, and are suitable for adding molecular barcode sequences for cells during single-cell sequencing. Surface groups and particle size can be customized according to users' requirements.



Features

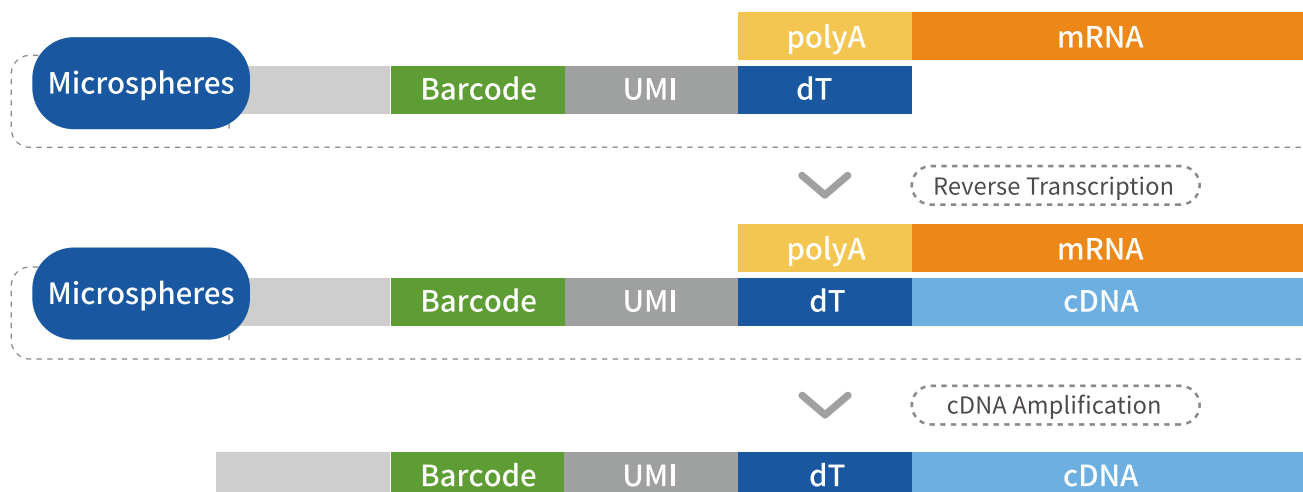
- Superparamagnetic microspheres, outstanding resuspension performance
- Hydrophilic surface, low non-specific adsorption
- Coated with carboxyl/streptavidin, efficiently binds aminated/biotinylated derivatives
- Uniform particle size, the CV is less than 5%, excellent experiment reproducibility
- Large-scale production, batch-to-batch consistency, superior quality with consistent test results



Technical Parameters

- **Composition:** Iron oxide (Fe_3O_4)
- **Particle Size:** 15 μm
- **Surface Groups:** Carboxyl/streptavidin
- **Dispersion medium:** magnetic microsphere preservation solution
- **Suspension time:** 20 minutes
- **Uniformity:** CV<5%
- **Additive:** trace amount of surfactant
- **Storage conditions:** Carboxyl-coated microspheres at 2-25°C, do not freeze; streptavidin-coated microspheres at 2-8°C, do not freeze.

Workflow of Single Cell Capture



Case Study

The magnetic microspheres provided by VDO Biotech assist the customer in the development of single-cell sequencing products with excellent quality and stable technology.

Sample	Rawreads	Valid Barcodes	Cell Barcode Q30	UMI Q30	Filter reads
WT11	95998650	96.52%	97.81%	97.94%	18307965(19.07%)
WT12	87711720	96.23%	97.31%	97.31%	11939878(13.61%)
WT13	94202231	96.36%	97.83%	97.83%	13133532(13.94%)
WT14	109508782	96.44%	97.86%	97.86%	14852887(13.56%)

WT11: samples using Company C's magnetic microspheres.

WT12-14: samples using VDO Biotech's magnetic microspheres.

From the bioinformatics analysis, the products developed with VDO Biotech's magnetic microspheres achieved the similar results as Company C's products in single-cell analysis and showed excellent performance in single-cell transcriptome sequencing.

Ordering Information

Cat. No.	Particle Size	Color	Surface Group	Solids	Size
NMP1015SA	15µm	Brownish yellow	SA	1.0×10 ⁶ /mL	10ml / 100ml / 1L
NMP1015CA	15µm	Brownish yellow	COOH	1.0%	10ml / 100ml / 1L

Other specifications can be customized upon requests.



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