

Cat. No. KT-COO-3000-5SE

Qbeads-Carboxyl Labeling Kit

Product description

Qbeads-Carboxyl Labeling Kit provides whole set of materials for researchers to bind the desired ligand onto magnetic beads conveniently. If only the ligand contain primary amine groups such as antibody, protein, or peptide, it can be conjugated to the magnetic beads easily. Qbeads-Carboxyl Labeling Kit comprises of the magnetic beads (Qbeads-Carboxyl) with surface functional group -COOH and all of the necessary reagents for labeling. The conjugated magnetic beads can be used for purification or depletion of biomolecules, immuoprecipitation, chromatinimmunoprecipitation, pull-down assay, and other applications.



Material supplied

Component	Quantity		
Qbeads-Carboxyl (Cat. No. MF-COO-3000)	5 x 0.5 mL		
Reagent A	5 x 5 mg		
Reagent B	5 x 5 mg		
Labeling Buffer	25 mL		
Quench Buffer	12 mL		
pH-7.4 PBS	20 mL		

Qbeads-Carboxyl provides $\sim 1 \mu m$ magnetic beads with 2mM carboxyl group on the surface, and is supplied in 50 % glycerol.

Additional material required

- Desired antibody or ligand
- Magntic stand: **Magdorf** (Cat. No. MDF-08) for the best performance
- Tilt rotation device or vortexer
- Pipette

Protocol

- ♦ The protein/peptide to be labeled must be free of amine-containing additives, such as sodium azide, BSA (bovine serum albumin), Tris (tris(hydroxymethyl)aminomethane), glycine, or glycerol and should be suspended in pH-7.4 PBS (phosphate buffered saline).
- Please bring Qbeads-Carboxyl, Labeling Buffer, Quench Buffer and pH-7.4 PBS to room temperature before use. Make sure that all buffers are dissolved completely.

Preparation of Qbeads-Carboxyl for use

- 1. Place the *Qbeads-Carboxyl* on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 2. Discard the supernatant by aspiration with a pipette.
- 3. Remove the tube from magnetic stand.
- 4. Add 1mL Labeling Buffer and resuspend the beads by pipetting.
- 5. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 6. Discard the supernatant, and then remove the tube from the magnetic stand.
- 7. Repeat steps 4-6 twice.

Activation of Qbeads-Carboxyl

- Quick-spin the Reagent A and Reagent B tubes before open them.
- Both Reagent A and Reagent B should be prepared freshly, protected from light, and kept on ice before use.
- 8. Add 100 μL **Labeling Buffer** to **Reagent A** and **Reagent B** respectively, and mix the each solution by pipetting or vortex.
- 9. Add 300 μL **Labeling Buffer**, 100 μL **Reagent A** and 100 μL **Reagent B** to step 7 tube, and resuspend the beads by pipetting.
- 10. Incubate with tilt rotation for 15 minutes at room temperature.
- 11. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 12. Discard the supernatant, and then remove the tube from the magnetic stand.

Conjugation of protein or ligands

- 13. Add 250 μL **Labeling Buffer** with 30-750 μg desired ligand or antibody and resuspend the beads by pipetting.
- 14. Incubate with tilt rotation at room temperature for 90 minutes or at 4° C overnight.
- 15. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 16. Discard (or collect, if necessary) the supernatant as unbound substances, and then remove the tube from the magnetic stand.
- 17. Add 500 µL Labeling Buffer and resuspend the beads by pipetting.
- 18. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 19. Discard the supernatant, and then remove the tube from the magnetic stand.

Stop the Reaction

- 20. Add 1 mL Quench Buffer and resuspend the beads by pipetting.
- 21. Incubate with tilt rotation for 30 minutes at room temperature.
- 22. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 23. Discard the supernatant, and then remove the tube from the magnetic stand.
- 24. Add 1 mL Quench Buffer and resuspend the beads by pipetting.
- 25. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 26. Discard the supernatant, and then remove the tube from the magnetic stand.
- 27. Add 1 mL pH-7.4 PBS (or the buffer preferred) and resuspend the beads by pipetting.
- 28. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 29. Discard the supernatant, and then remove the tube from the magnetic stand.
- 30. Repeat steps 27-29 twice.
- 31. Add 500 µL **pH-7.4 PBS** (or the buffer preferred) and resuspend the beads by pipetting.
- 32. Store the beads at $2-8^{\circ}C$.

Storage

Please keep the Qbeads-Carboxyl Labeling Kit at -20 $^{\circ}$ C. The validity is warranted for 12 months.

Contact Information

Please contact us when you have any question or comments via e-mail: <u>info@magqu.com</u>, or phone: +886-2-8667-1897.

Remarkable Notes

- 1. Please keep the reagent away from magnets during storage.
- 2. The product is for research use only.



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Product Information

Magnetic Qbeads Series

Products	Cat. No.		
Qbeads-Protein A	MF-PRA-3000		
Qbeads-Protein G	MF-PRG-3000		
Qbeads-NTA-Ni	MF-HIS-3000		
Qbeads-Streptavidin	MF-STA-3000		
Qbeads-Silica	MF-SIL-5010		
	MF-SIL-5024		
Qbeads-Hydroxyl	MF-DEX-3000		
Qbeads-Carboxyl	MF-COO-3000		
Qbeads-Amine	MF-NHH-3000		
Qbeads-Carboxyl Labeling Kit	KT-COO-3000-5SE		

Magnetic NanoParticle Series

Products	Particle size	Cat. No.
Magnetic Fluid- Hydroxyl	30 nm	MF-DEX-0030
	60 nm	MF-DEX-0060
	90 nm	MF-DEX-0090
Magnetic Fluid- Carboxyl	30 nm	MF-COO-0030
	60 nm	MF-COO-0060
	90 nm	MF-COO-0090
Magnetic Fluid- Amine	30 nm	MF-NHH-0030
	60 nm	MF-NHH-0060
	90 nm	MF-NHH-0090
NanoQ-Carboxyl Labeling Kit	60 nm	KT-COO-0060-1SE

Accessory

Products	Description	Cat. No.
Magdorf	for 1.5 ml eppendorf tube	MDF-08
Magstand	for magnetic separating column	MSD-01
	for 15 ml falcon tube	MSD-15
	for 50 ml falcon tube	MSD-50
	for 96-well culture plates	MTR-96
Magtractor	for 24-well culture plates	MTR-24
	for 6-well culture plates	MTR-06

Fluorescent Magnetic Nanoparticles

Products	Particle size	Cat. No.
Blue FluoroNanoQ	60 nm	MF-FBL-0060
Green FluoroNanoQ	60 nm	MF-FGR-0060
Red FluoroNanoQ	60 nm	MF-FRE-0060

Customized Conjugation Service

Products	Particle size	Cat. No.
Customized conjugated magnetic beads	3 µm	MF-CCS-3000
	30 nm	MF-CCS-0030
Antibody or peptide provided by customers (100 ug)	60 nm	MF-CCS-0060
	90 nm	MF-CCS-0090



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