

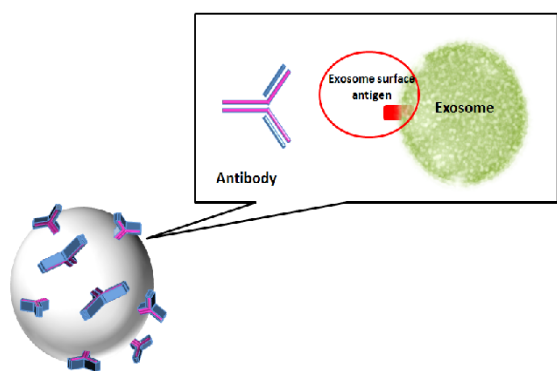


Immunobeads for exosome capture and isolation



To isolate overall exosomes or specific exosome sub-populations from biofluids or cell media

HBM provides different immunobeads for exosome capture and/or enrichment



HBM provides several types of Immunobeads for capturing and isolating overall or specific exosome sub-populations. Latex immunobeads are covalently coupled with antibodies against exosome surface antigens, allowing exosome capture from human biofluids (tested for plasma, serum and urine) and cell culture supernatants without pre-purification steps (ultracentrifuge or other method for exosome purification). HBM immunobeads are able to capture the overall exosome population

(Immunobeads for Overall Exosome capture) or to enrich exosome subpopulation derived from tumoral source (Tumoral-derived exosome capture and enrichment). Immunobeads are supplied with an Exosome Elution Buffer, that allows detachment and elution of captured exosomes for downstream analyses, and with a Beads Regeneration Buffer to regenerate immunobeads for further usage. All Immunobeads are available in two sizes (0.4 and 1 micron of diameter) and are sold in packages of 10 and 20 reactions.

Applications

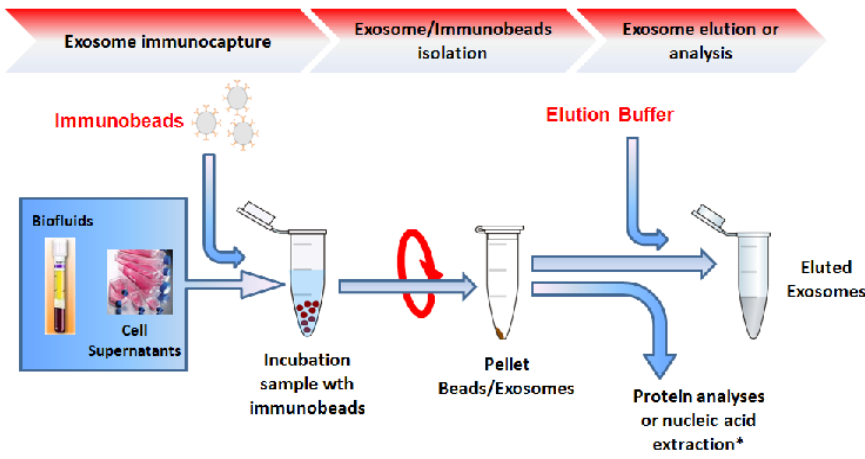
- Overall exosome isolation from cell culture media and human biofluids (tested for plasma, serum, urine).
- Overall exosome isolation from mouse biofluids (tested for plasma and serum).
- Capture and enrichment of human exosome subpopulation (tumor-derived).
- Downstream exosome marker profiling.
- Nucleic acids extraction
- Exosome elution from immunobeads.

Advantages

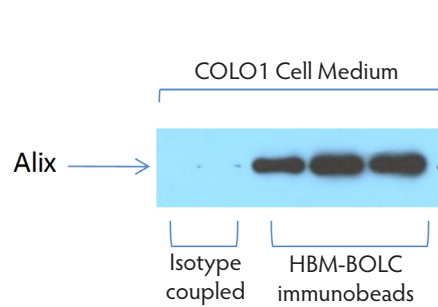
- Ready to use.
- Easy, fast and efficient protocol.
- Small sample volume of biofluid or cell culture medium.
- No ultracentrifugation or other methods for exosome purification required.
- Supplied with buffer for exosome elution from beads.
- Immunobeads can be regenerated with Beads Regeneration Buffer and reused.

Cat. Code	Package	Coating antibody
Overall Exosome immunocapture from human biofluids		
HBM-BOLF-CC/10-##	10 reactions. Beads diameter 0.4 µm or 1 µm	Mouse
HBM-BOLF-CC/20-##	20 reactions Beads diameter 0.4 µm or 1 µm	Mouse
Overall Exosome immunocapture from cell culture media		
HBM-BOLC-CC/10-##	10 reactions. Beads diameter 0.4 µm or 1 µm	Mouse
HBM-BOLC-CC/20-##	20 reactions Beads diameter 0.4 µm or 1 µm	Mouse
Tumor-derived Exosome immunocapture from human biofluids		
HBM-BTLF-CC/10-##	10 reactions. Beads diameter 0.4 µm or 1 µm	Rabbit
HBM-BTLF-CC/20-##	20 reactions Beads diameter 0.4 µm or 1 µm	Rabbit
Overall Exosome immunocapture from mouse plasma and serum		
HBM-BMLF-CC/10-##	10 reactions. Beads diameter 0.4 µm or 1 µm	Mouse
HBM-BMLF-CC/20-##	20 reactions Beads diameter 0.4 µm or 1 µm	Mouse
Overall Exosome immunocapture from mouse cell media		
HBM-BMLC-CC/10-##	10 reactions. Beads diameter 0.4 µm or 1 µm	Mouse
HBM-BMLC-CC/20-##	20 reactions Beads diameter 0.4 µm or 1 µm	Mouse
All immunobeads are available in TRIAL format, 3 or 5 reactions. (Elution buffer not included in 3 reaction package). Cat. Code: HMB-T####-CC/x. (#: insert the code of immunobeads. x: insert the number of reactions)		

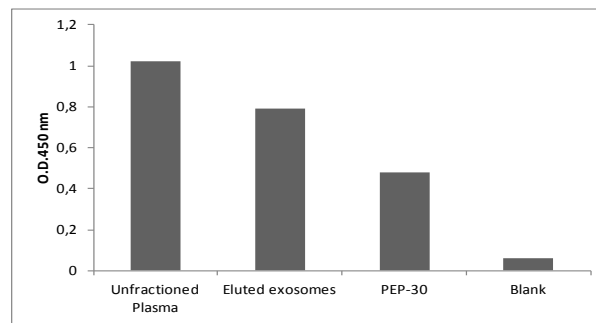
Immunobeads are efficient for profiling exosome protein and nucleic acid (RNA/DNA) markers



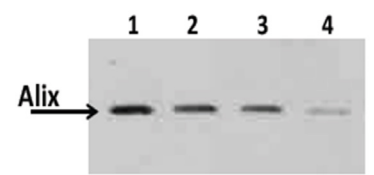
Following incubation, beads can be recovered by centrifugation, resuspended in Laemmli buffer for SDS-PAGE and western blotting analysis (Fig 1; Fig 4) or in appropriate lysis buffer for nucleic acid analysis (Fig 5). Otherwise the vesicles can be eluted from the beads by the Elution Buffer and used for downstream applications as ELISA (Fig 2), EM, etc. Eluted beads can be regenerated with Bead Regeneration Buffer and reused for capturing exosome two times more (Fig 3).



1. Alix expression by western blotting of exosomes captured on HBM-BOLC immunobeads from COLO1 cell supernatant vs isotype coupled beads.



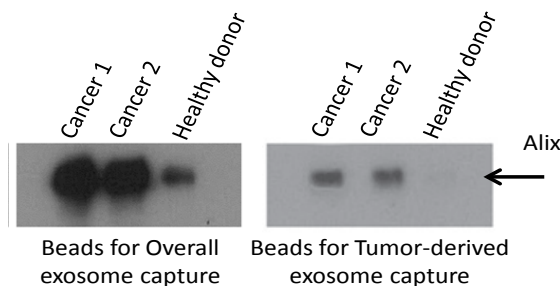
2. CD9 expression in exosomes eluted from immunobeads



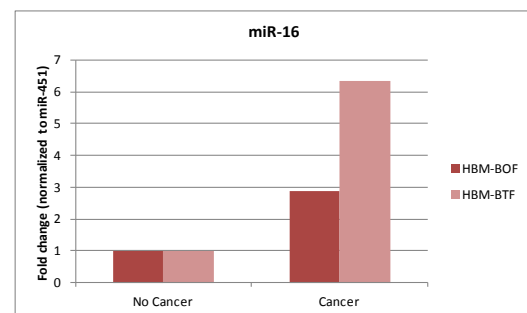
3. Western Blotting analysis of immunocaptured exosomes on beads.
 1- Exosomes immunocaptured with fresh beads
 2- Exosomes immunocaptured with beads reused once
 3- Exosomes immunocaptured with beads reused twice
 4- Exosomes immunocaptured with beads reused the third time

Immunobeads enrich for Tumor-derived exosome subpopulation in cancer patients

Immunobeads for tumor-derived exosome capture can be used for enriching exosome subpopulations derived from tumoral sources thus providing a novel platform for cancer biomarker research.



4. Anti-Alix WB analysis on exosomes immunocaptured with beads for overall (HBM-BOLF) and for tumor-derived exosomes (HBM-BTLF). WB shows the capture of exosomes only for cancer patients when beads for tumor-derived exosomes are used.



5. Enrichment in miR-16 expression level in cancer when immunobeads for Tumor-derived exosome capture are used. miR-16 expression was measured relative to control miR-451 by qPCR.

HBM Custom-Made Immunobeads

HBM provides custom-made beads for specific Academic or Industrial needs. You can choose your preferred bead types and coating antibody for exosomes capture. We can facilitate your research work providing professional services performed by scientists experienced in the exosome field and using state of art equipment. Visit our Service section at www.hansabiomed.eu