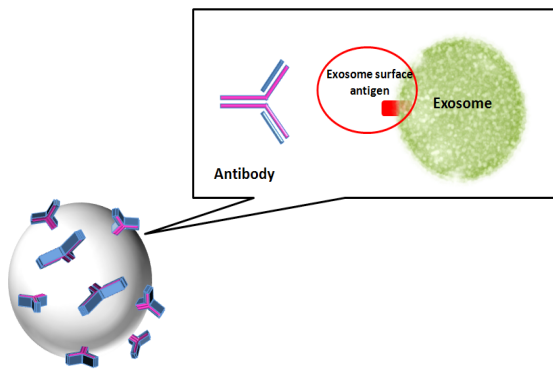


# Immunobeads

## 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.

Cat. Code	Package	Coating antibody
<b>Overall Exosome immunocapture from human biofluids</b>		
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
<b>Overall Exosome immunocapture from cell culture media</b>		
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
<b>Tumor-derived Exosome immunocapture from human biofluids</b>		
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
<b>Overall Exosome immunocapture from mouse plasma and serum</b>		
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
<b>Overall Exosome immunocapture from mouse cell media</b>		
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)		

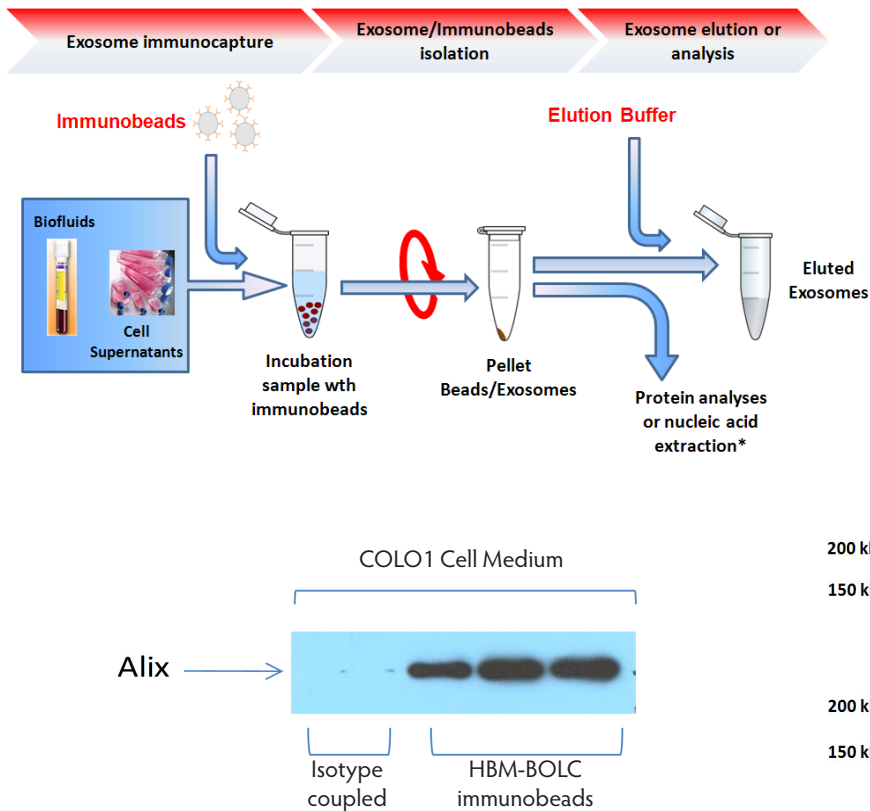
### Applications

- 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

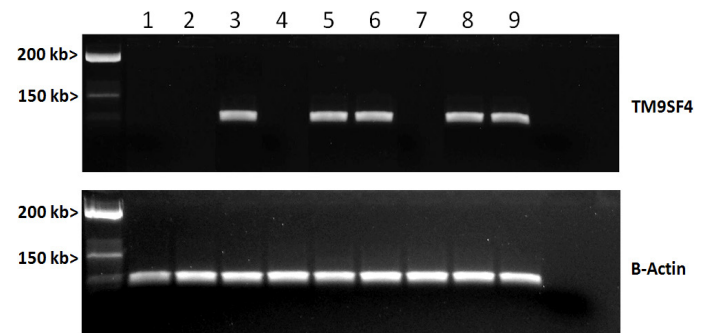
- Ready to use.
- Easy, fast and efficient protocol.
- Small sample volume of biofluid or cell culture medium.
- No ultracentrifugation or other methods for exosome purification required.
- Supplied with buffer for exosome elution from beads.
- Immunobeads can be regenerated with Beads Regeneration Buffer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

## HBM Latex Immunobeads allow exosome capture and multiple downstream analyses



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

HBM Latex Immunobeads allow the overall exosome capture from human biofluids (plasma, serum and urine) and from cell culture supernatants. Beads are added to your sample and incubated overnight to bind exosomes. After incubation, beads can easily be recovered by centrifugation and the bead pellet can be directly used for nucleic acid extraction or protein analysis. Alternatively, intact exosomes can be eluted from the beads using the Exosome Elution Buffer. Immunobeads allow total RNA extraction from captured exosomes. Isolated total RNA is suitable for mRNA or small RNA analysis. Figure 2 shows the expression profile of NEK transcripts from exosomes derived from 9 different cell lines.

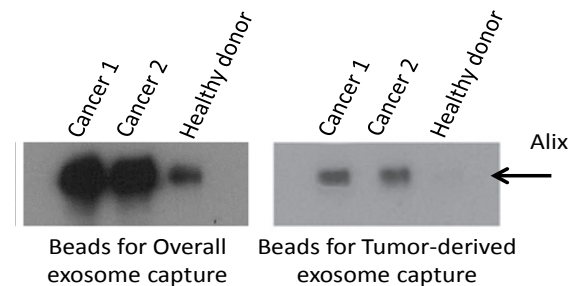


2. Profile of two mRNA marker in exosomes derived from 9 cancer cell lines, previously immunocaptured using HBM beads.

## HBM Immunobeads for Tumor-derived exosomes (HBM-BTLF) allow enrichment of tumor derived exosomes from cancer patients' biofluids

Immunobeads for Tumor-derived exosomes (HBM-BTLF) capture and enrich the specific exosome subpopulation originated from the tumor, thus providing a useful platform for basic or applied research studies in oncology. Immunobeads are covalently coated with proprietary antibodies against antigens overexpressed on most solid tumors and clinically validated in collaboration with Exosomics Siena SpA.

HansaBioMed offers the only product available on the market for the specific immunocapture of tumor derived exosomes.



3. 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.

## 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](http://www.hansabiomed.eu)