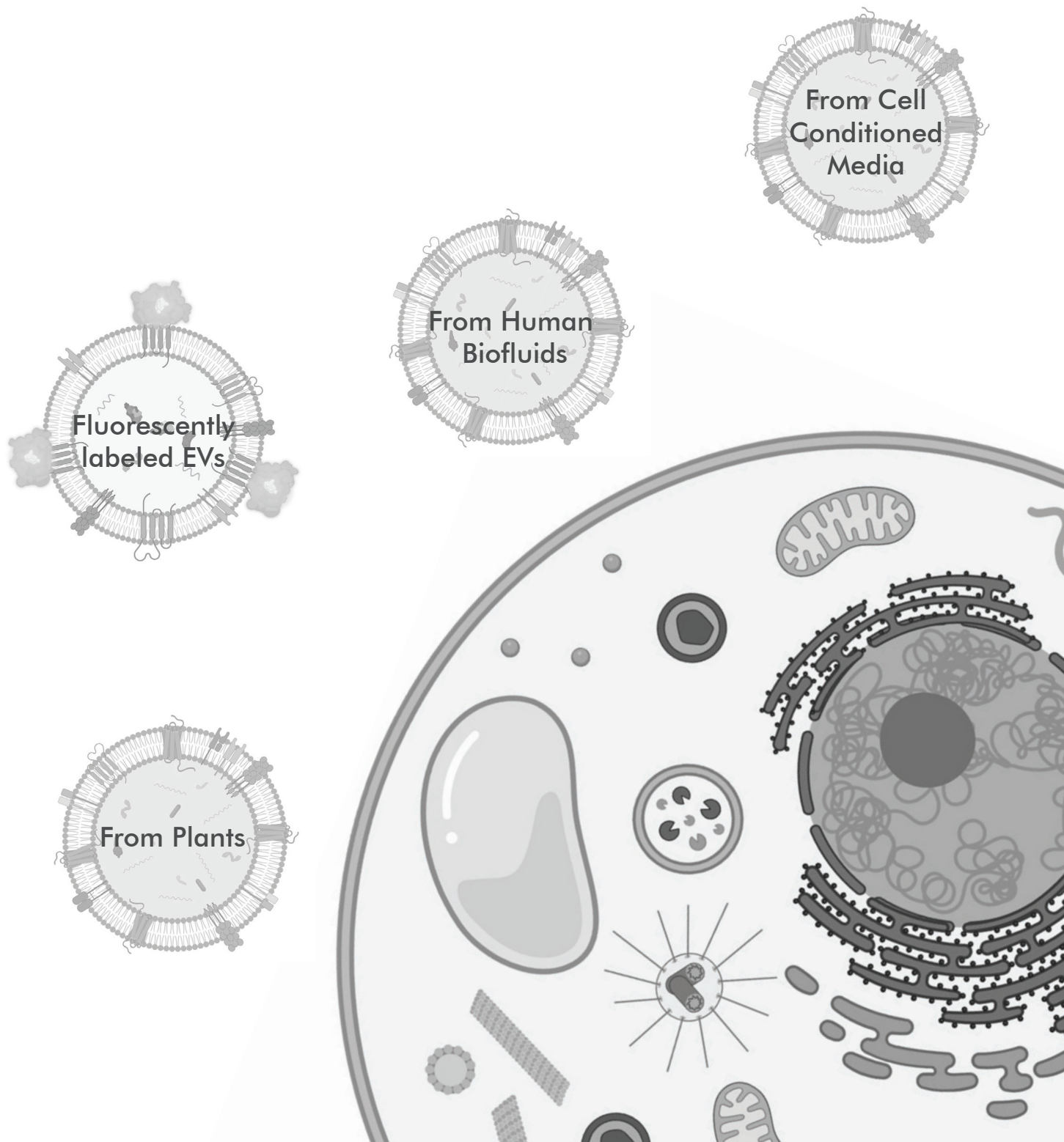


Pioneering the Extracellular Vesicle field

Purified Extracellular Vesicles









Purified Small and Large EVs

HansaBioMed Life Sciences (HBM-LS) lyophilized EVs are isolated through a combination of Tangential Flow Filtration (TFF) and size exclusion chromatography (SEC). Vesicles are subsequently quantified and validated for marker expression, particle number and size distribution by NTA (Zetaview, Particle Metrix) and morphology (TEM). Lyophilized EVs are easy to ship and stable for long term storage (up to 36 months).

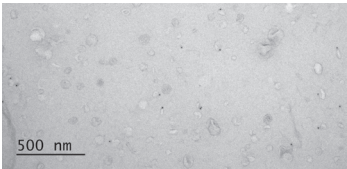
HansaBioMed Life Sciences purified EVs are produced from conditioned media of human or animal cells, human biofluids, and plant extracts.

Characteristics and applications

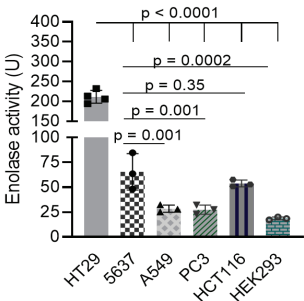
-  Reference control for particle analysis
-  Cell spike-in
-  Biologic standard for nanoparticle analyzers
-  Reference control for development of new EV isolation tools
-  Biomarker discovery
-  EV phenotyping and OMICS analysis

Purified EVs from Cell Conditioned Media

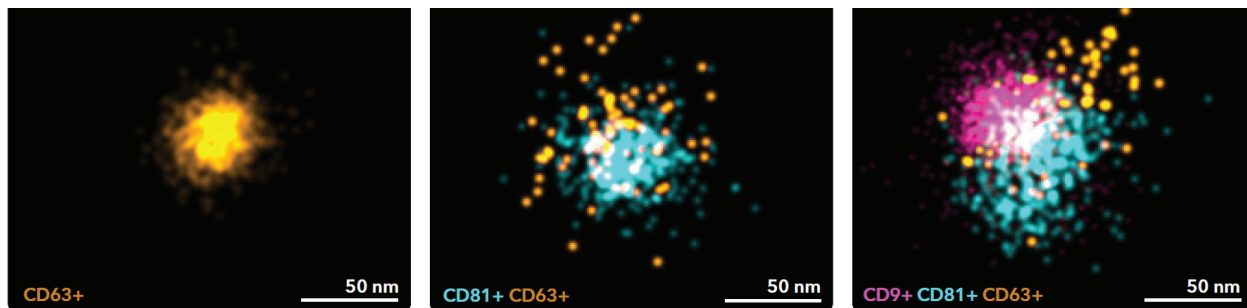
Lyophilized Small EVs from Human Mesenchymal Stem Cells (MSC)	
Human adipose tissue cells	Primary cells from 10 donors (pool)
Lyophilized Small EVs and Large EVs from HEK293 cells	
Human Embryonic kidney	HEK293
Lyophilized Small EVs and Large EVs from Human Cancer Cell Lines	
Lung carcinoma	A549, NCI-H1975
Chronic myelogenous leukemia	K562
Acute monocytic leukemia	THP1
Glioblastoma	U87
Neuroblastoma	SK-N-SH
Colorectal carcinoma	COLO1, HCT116, HT29
Prostate carcinoma	PC3, LnCAP
Pancreas carcinoma	BxPC-3
Breast carcinoma	MCF7, SK-BR-3
Lyophilized Small EVs and Large EVs from Mouse/Hamster Cell Lines	
Mouse melanoma	B16F10
Chinese hamster ovary	CHO
Purified EVs are available on customer request from a list of over 200 cell lines.	



Detection by IME of CD9 in HCT116 lyophilized EVs (anti-CD9 HBM-LS).



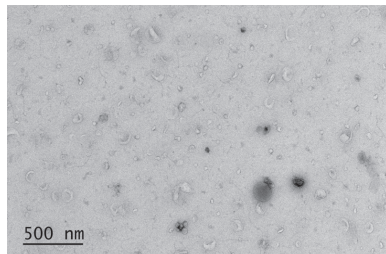
Enolase activity in EVs from various cell lines. 1x10¹⁰ particles used.



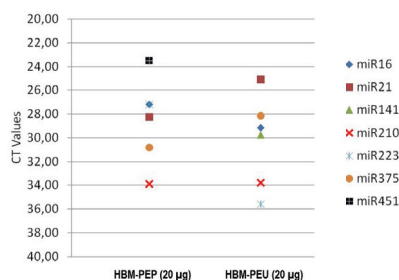
3-color dSTORM image of CD9-ATTO488, CD63-Alexa Fluor®-647 and CD81-Alexa Fluor® 555 EVs from HCT116 cell line (HBM-HCT-100) on the ONI Nanoimager (ONI). Single EV with presenting only a single tetraspanin marker on their surface (C). Single EV presenting two markers (D). Single EV presenting three markers (E).

Purified EVs from Human Biofluids

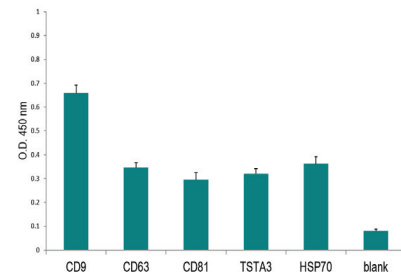
Lyophilized Small EVs from human blood components and body fluids	
Human plasma EVs (PEP)	Pool of healthy donors
Human serum EVs (PES)	Pool of healthy donors
Human platelets EVs	NEW PRODUCT
Human red blood cells EVs	NEW PRODUCT
Human Urine EVs (PEU)	Pool of healthy donors



Urine EVs (HBM-PEU) on TEM.



miRNAs in lyophilized EVs from human plasma (HBM-PEP) and urine (HBM-PEU).



Phenotyping of human plasma EVs (HBM-PEP) on ELISA.

Purified Plant EV-like Nanoparticles (ELN)

The presence of EV-like Nanoparticles (ELNs) in plant was suggested around the late 1960s. However, only in the last decade began a growing interest on ELNs, in particular from the cosmetic and food industry. HansaBioMed Life Sciences ELNs are purified by Tangential Flow Filtration, characterized by particle size distribution and concentration and expression of TET8 markers (corresponding of mammalian CD63).



Potato



Ginger



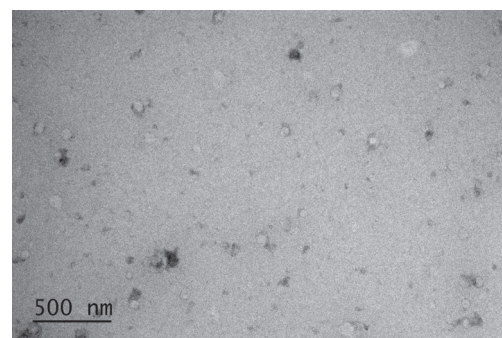
Onion



Seaberrries



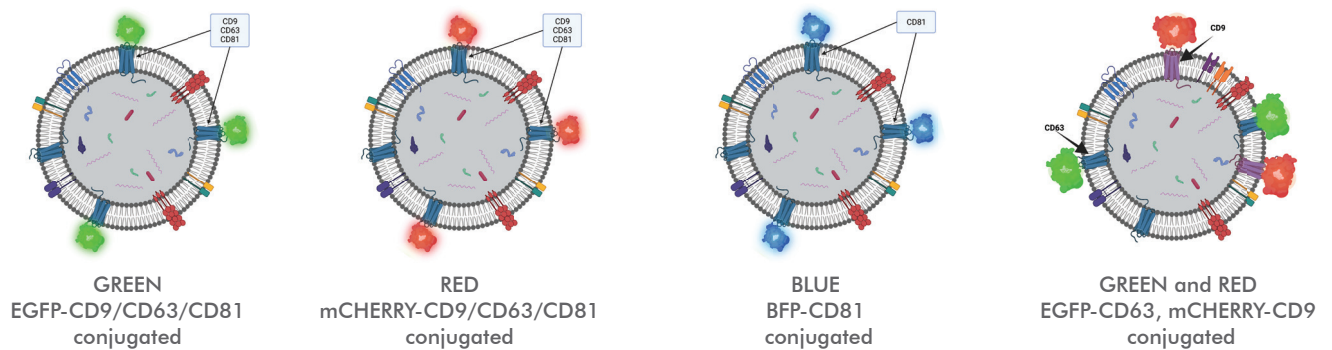
Garlic



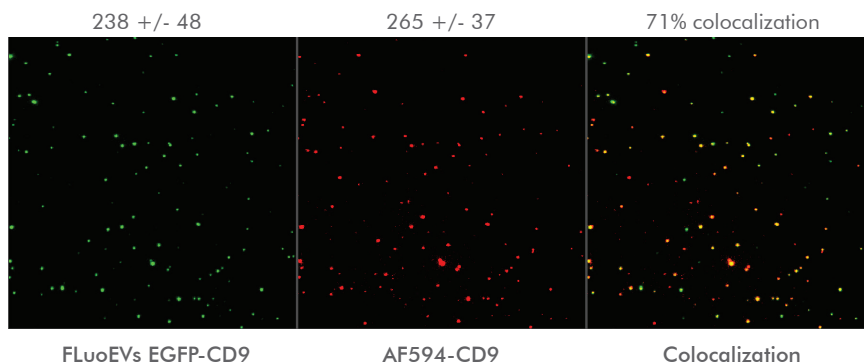
Seaberrries ELN

FLuoEVs: EVs expressing fluorescent proteins

FLUO-EVs are stably-fluorescent EVs expressing the fluorescent protein EGFP (green) BFP (blue) or mCherry (Red) as fusion protein with tetraspanins CD9, CD81 and CD63. FLUO-EVs demonstrated high stability of the fluorophores, they can be used for vitro tracking studies or as reference material for analyzers of nanoparticles or for assay calibration.



Colocalization of EGFP-FLuoEVs and antibody labeling



FLuoEVs: performance on common used analyzers

