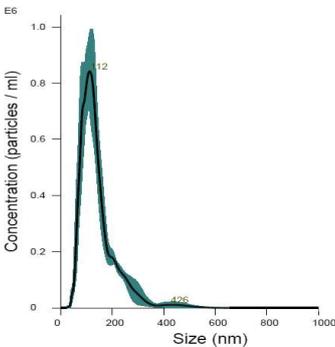
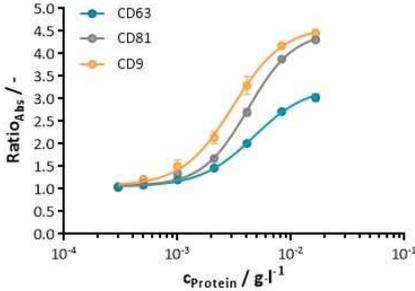




**Designation: HaCaT Exosome Standard**

CLS order number: 310493exo

Size: 25µg protein, 100µl buffer

Product Description	Exosomes were isolated from HaCaT human keratinocytes growing as adherent monolayer. The exosomes are stored in PBS containing 25 mM Hepes, pH=7.2.
Exosome preparation	HaCaT keratinocytes were cultured in DMEM supplemented with 4.5 g/L glucose, glutamine and 10% FBS at 37°C/5% CO <sub>2</sub> . As soon as the cells have reached 80% confluency, the monolayer was rinsed twice using PBS to remove serum exosomes. The adherent cells were incubated using SciNX serum free, chemically defined cell culture media (Scinora GmbH, Heidelberg, Germany) for an additional 48 hrs. The supernatant was collected, any residual cells were removed by centrifugation at 300xg for 3 minutes. An additional centrifugation step at 3,000xg for 20 minutes at 4°C was conducted to remove cell debris. The exosomes were collected by precipitation, carefully resuspended using PBS-Hepes buffer and again collected by precipitation.
Protein concentration:	The protein concentration was determined using the BCA assay.
Particle size:	<p>The size of HaCaT exosomes was controlled using the NanoSight nanoparticle tracking system of Malvern Panalytcs, Kassel, Germany.</p>  <p>The Particle Diameter was 141.3 ± 15.2 nm</p>
Particle concentration:	0.9E+11 particles/ml
Exosomal marker:	<p>The presence of CD63, CD9 and CD81 was verified by ELISA.</p> 

Storage	The exosome aliquot should be stored below -20°C. For long term storage, a temperature of -80°C is recommended.
Note:	Several freeze-thaw cycles must be avoided.
Applications	Exosomes are optimal carriers for various biomarkers such as proteins, RNA and lipids.

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Important note: This product is intended for research use only.  
Not for use in human, therapeutic or diagnostic applications.