

ASCENT · PLATFORM

When every fraction counts: how the Ascent platform transforms EV isolation

Ascent™ is for research use only. Not for use in diagnostic procedures.

— THE HIDDEN BOTTLENECK IN EV RESEARCH

For scientists working with extracellular vesicles (EVs), the promise of discovery is often slowed by the realities of the bench. EV isolation, especially via size-exclusion chromatography (SEC), is widely used and trusted, but it comes with compromises: manual labor, inconsistent drip rates, and subtle variations between columns that can compromise reproducibility. Even small deviations in fraction collection can lead to data variability, complicating downstream characterization and functional studies.

It's a problem researchers know all too well: hours spent monitoring columns, adding buffer, and collecting fractions by hand. Everest Biolabs recognized these pain points from firsthand experience in EV research and asked: *what if we could remove the bottlenecks without sacrificing precision?* Inspired by postdoctoral EV research, we designed **Ascent**, an automated, benchtop-friendly platform that redefines how scientists work with EVs.



The Ascent platform. Automated, benchtop SEC fraction collection for up to eight samples in parallel.

"The Ascent automates SEC and can run up to 8 samples in parallel. This not only saves time, but is particularly important for reproducibly comparing different samples."

Dima Ter-Ovanesyan · Co-founder, Everest Biolabs

Introducing the Ascent platform

At its core, Ascent is an automated fraction collector for SEC-based EV isolation, running **1 to 8 columns in parallel** and collecting **up to 12 fractions per column**. It works with Everest's Apex columns as well as third-party SEC columns like qEV™, offering flexibility for diverse applications.

The platform fits smoothly into a lab workflow. Columns are pre-washed automatically, and once you manually add your samples, the instrument handles fraction collection with full reproducibility and precision: high-throughput EV isolation without compromising quality.

Precision you can rely on

What sets Ascent apart is its attention to detail. High-precision pumps and optical drop detection ensure accurate fraction collection, and calibration is based on dispensing, not weight, making it robust against vibrations and nearby lab equipment. The

system waits for the final drop, monitors flow, and adjusts automatically, so there's no guesswork.

The **Column Saver** feature adds another layer of reliability: if you step away, it keeps columns hydrated, preventing resin from drying out and protecting the integrity of your precious samples.

PROGRAMMABLE FLEXIBILITY & THROUGHPUT

Every EV sample is unique, and Ascent respects that. Researchers can program discard volumes, fraction volumes, and collection sequences to optimize recovery for their sample type and downstream application. Whether running a single column or eight, the workflow is fully customizable without adding complexity, letting you adjust collection for different column types, run one

column or eight without affecting throughput, and tailor fraction volume for plasma, serum, urine, or cell-culture supernatants.

High-throughput doesn't just mean faster: it means scaling research reproducibly. With Ascent, running eight columns takes roughly the same time as running one: about an hour for a complete wash and fraction-collection cycle.

"Our new products remove bottlenecks in EV isolation and analytics by providing scientists with precise, scalable, and reliable tools."

George Daaboul · CEO, Everest Biolabs

Case in point: clinical-scale studies

Clinical studies often involve dozens of patient samples per day. With traditional manual SEC, processing these can take weeks; Ascent reduces that to hours or days. Eight samples per run, each producing 12 fractions automatically; that's **96 fractions in a single session**, ready for downstream analysis, turning weeks of manual work into days of automated productivity.

Built for real-world labs, the Ascent has a **compact benchtop design** (397 × 364 × 331 mm, 13.6 kg), USB-C connectivity for software updates, broad chemical compatibility (PBS, DI water, 70% ethanol, dilute bleach), and safety checks that monitor column placement, priming, and sample readiness.

THE RESULT: EFFORTLESS, SCALABLE EV ISOLATION

- ✓ Save time with parallel processing: eight columns in the time of one.
- ✓ Achieve reproducible, accurate fraction collection with minimal hands-on intervention.
- ✓ Scale seamlessly from discovery to clinical-level throughput without sacrificing data quality.

[Request a demo of the Ascent platform →](#)