

Together. All the way™

EmbryoMap

- Bringing a new solution to your lab



Streamline your workflow every step of the way

Introducing EmbryoMap from Vitrolife. A new streamlined workflow with advanced analytical features, designed by scientists, for scientists. Discover a complete solution that will streamline your workflow every step of the way.

Samples are prepared for sequencing using the EmbryoMap Sample Prep Kit, sequenced on the Illumina MiSeq Sequencing System and run planning, data analysis and reporting performed using eMap software.

EmbryoMap sample preparation

MiSeq sequencing

eMap analysis and reporting



“Advising the Vitrolife team on the design and development of EmbryoMap, a new NGS-based solution, with state of the art, advanced analytical tools, has been an exciting journey”

Professor Alan Handyside,
Scientific Advisor, Vitrolife



Analytical Validation

The EmbryoMap solution has been analytically validated for the detection of whole- and sub-chromosomal imbalances. Genomic DNA and cell line isolates with known karyotypes, and trophectoderm samples from in vitro embryos were analysed to evaluate the assay performance. Samples were tested across multiple conditions such as the shelf life, freeze-thaw stability, sequencing instruments, and workflow stopping points to ensure reproducibility and stability of the EmbryoMap kit. The EmbryoMap Solution provides a combination of improved assay chemistry, sequencing strategy, and advanced analytical tools, to enable increased throughput, highly accurate copy-number quantitation, higher resolution and improved QC-metrics with automatic assessment using the eMap software.

1 EmbryoMap Kit

The EmbryoMap Sample Prep Kit and the Illumina MiSeq Reagent Kit can be ordered under a single reference number. Making shipping and storage convenient and recognising the need for sustainability, the EmbryoMap Sample Prep Kit is delivered in a single box with a small footprint. With the benefit of master-mixed reagents and pre-plated indexes, pipetting steps are minimised saving precious time.

2 Streamlined workflow

For flexibility in sequencing throughput and to meet the needs of increasing sample numbers, EmbryoMap kit formats are available allowing from 8 up to 48 samples per sequencing run. Preparing sequencing-ready DNA libraries can be achieved in just a few hours freeing up lab time.

3 Sequencing

A custom sequencing recipe and automatic data upload from the Illumina MiSeq System to the eMap software, optimises data output and management. Paired-end sequencing is implemented for improved alignment with more samples per run, whilst maintaining exceptional data quality.

4 eMap data analysis

The cloud-based eMap software tool enables run planning, sample tracking, data analysis and reporting. The enhanced copy-number calling algorithm includes automated and manual calling options for full copy-number, sub-chromosomal and putative mosaic imbalances. Data can be visualised in a traditional CNV chart and new circos map. User-defined thresholds can be tailored to meet laboratory requirements.

5 Reporting

The cloud-based eMap software allows users to generate reports, enabling customised features to be incorporated. Cycle and embryo reports can include logos, custom text, quality metrics and specifications for calling criteria.

[Learn more about EmbryoMap at vitrolife.com](https://vitrolife.com)

EmbryoMap Kit

Reagents for EmbryoMap are sold in kit bundles to include enough reagents for processing 96 samples depending on sequencing throughput.

Kit Name	REF#	Quantity	Storage Temp
EmbryoMap Kit (48 samples/run)	13348		
EmbryoMap Sample Prep (96 rxns)	13301	1	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 1 of 2	15043893	2	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 2 of 2	15043894	2	2°C to 8°C
EmbryoMap Kit (24 samples/run)	13324		
EmbryoMap Sample Prep (96 rxns)	13301	1	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 1 of 2	15043893	4	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 2 of 2	15043894	4	2°C to 8°C
EmbryoMap Kit (12 samples/run)	13312		
EmbryoMap Sample Prep (96 rxns)	13301	1	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 1 of 2	15043893	8	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 2 of 2	15043894	8	2°C to 8°C
EmbryoMap Kit (8 samples/run)	13308		
EmbryoMap Sample Prep (96 rxns)	13301	1	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 1 of 2	15043893	12	-25°C to -15°C
MiSeq Reagent Kit v3 - Box 2 of 2	15043894	12	2°C to 8°C

Software Specifications · The EmbryoMap Solution uses the eMap software suite for run planning, data analysis and reporting.

➔ To learn more about how Vitrolife can make a difference and to follow the latest science and discussions on our blog, visit blog.vitrolife.com

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