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Product Catalog

MagSiMUS | MagSi

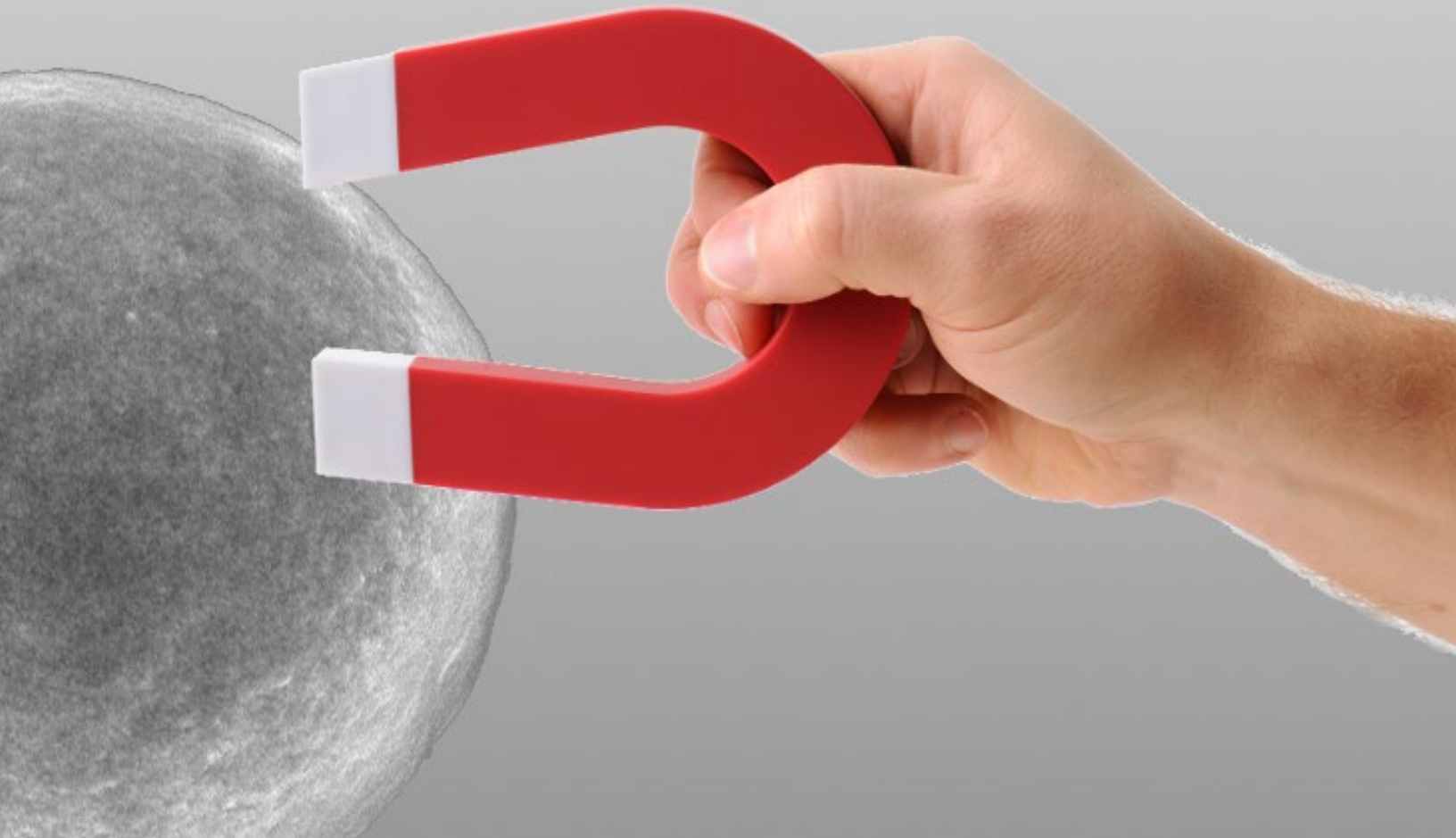


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MagSiMUS Products for LC-MS/HPLC Sample Preparation

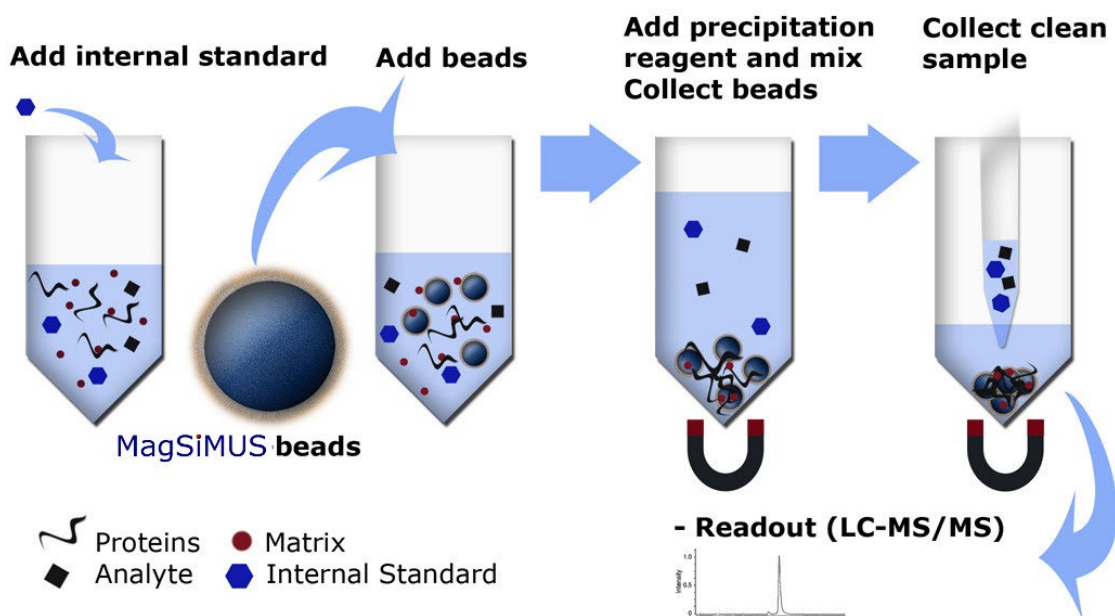


THE MagSiMUS PRINCIPLE

More and more (U)HPLC and Mass Spectrometry technologies replace the less sensitive and often more unspecific immunoassays for the detection and analysis of increasingly complex target analytes in clinical diagnostics and screening laboratories. To reduce matrix effects, a good sample preparation method upfront of these analyses is often required to exclude interfering compounds – especially proteins. All commonly used methods – Protein Precipitation (PP), Solid Phase Extraction (SPE) and Liquid Liquid Extraction (LLE) - have specific disadvantages: difficult to automate, time-consuming and/or economically unfavorable.

MagSiMUS magnetic bead-based biological sample preparation kits are intended for protein depletion and removal of other interfering compounds from biological samples like whole blood, serum, plasma or urine. They work according to the unique and innovative negative selection technology, which removes the contaminants and leaves the target molecules in the supernatant.

For LC-MS, an internal standard, typically dissolved in dilution reagent, is added to a clinical sample. This ensures that the analyte itself and the internal standard undergo one and the same cleanup route. The **MagSiMUS** magnetic bead (particle) mix is then added and suspended homogeneously into the clinical sample. Proteins and larger peptides are then precipitated towards the beads' surface by addition of a protein precipitating reagent. The magnetic bead/protein precipitate is subsequently attracted by a magnetic field with a suitable magnetic separator, leaving the target analyte in suspension. The supernatant is now clean and can be directly injected into the readout system (UHPLC, LC-MS/MS).



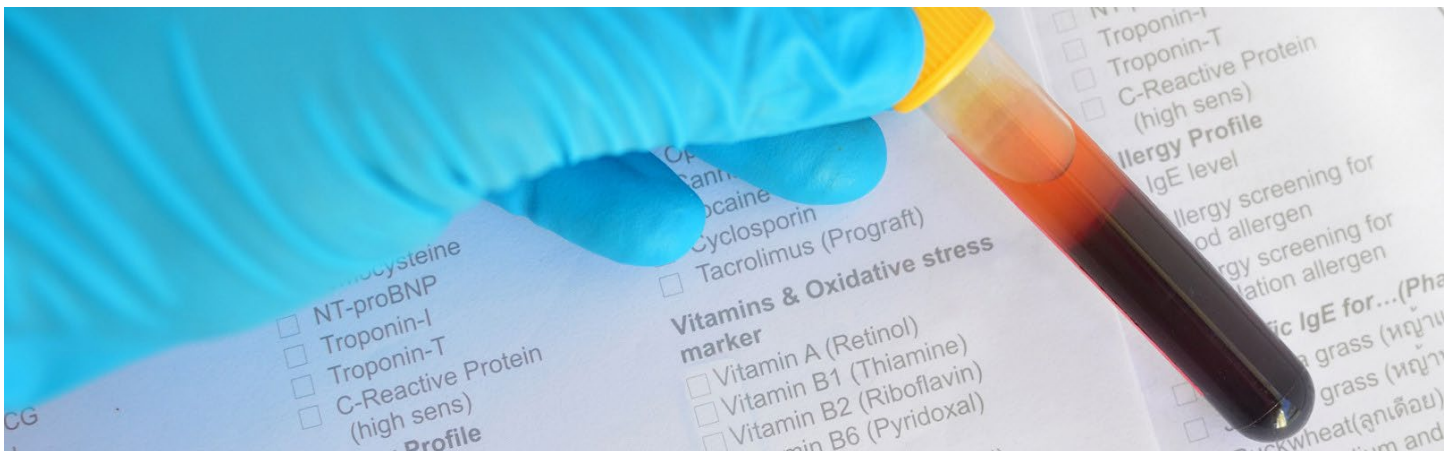
MagSiMUS technology uses flexible protocols, does not require centrifugation and is easy to automate for medium and high-throughput processing.

MagSiMUS methods are designed and optimized for the sample cleanup prior to the LC-MS/MS or (U)HPLC analysis of specific analytes. For more information on which **MagSiMUS** method to use for what analytes, contact our technical support department.

Make sure to use suitable Magnetic Separators for **Manual Use** or for **Automated Processing** in conjunction with **MagSiMUS** methods (see pages 27 and 28).

MagSiMUS features

- Reduced matrix effects in (U)HPLC and Mass Spectrometry
- Quick and complete sample preparation protocols, with short run times
- Easy to automate for medium and high throughputs
- Works with low sample volumes (down to 25 - 50 μ L) so there is always cost-saving on reference materials
- No need for centrifugation or the application of positive or negative (air) pressure
- Many different MagSiMUS methods available in kit formats covering many different analytes.



SAMPLE PREPARATION FOR THERAPEUTIC DRUG MONITORING (TDM) BY (U)HPLC OR LC-MS



MagSiMUS-TDM^{PREP}

MagSiMUS-TDM^{PREP} kits are designed for the cleanup of biological sample materials prior to LC-MS/MS or (U)HPLC analysis of e.g. immunosuppressants, antiepileptics, anticoagulants, neuroleptics, antimycotics, psychoactive drugs, antiarrhythmics, antibiotics and many other therapeutic drugs or substances.

MagSiMUS-TDM^{PREP} kits are available in two different magnetic bead type versions: Type I and Type II. Each magnetic bead mix type is optimized for the recovery of the analytes / panels of interest. The sample preparation method is the same for both bead mix types. Organic Precipitation Reagents (OPR I or OPR VI) for the selected method should be ordered separately, as well as Lysis Buffer for the whole blood protocol.

For more information and selection of the right magnetic bead type, contact our technical support department.

Description	Pack Size	Catalogue No.
MagSiMUS-TDM ^{PREP} Type I (contains Type I Particle Mix, ISDR A and ISDR B)	500 preps	MD03026
MagSiMUS-TDM ^{PREP} Type II (contains Type II Particle Mix, ISDR A and ISDR B)	500 preps	MD03226
Materials that can be ordered separately		
Organic Precipitation Reagent I (OPR I); for acetonitrile-based precipitation	100 mL	MD71130
Organic Precipitation Reagent VI (OPR VI); for methanol-based precipitation	100 mL	MD71335
Lysis Buffer for whole blood	100 mL	MD71630
Internal Standard Dilution Reagent A (ISDR A) – for use with OPR I	100 mL	MDRE00110100
Internal Standard Dilution Reagent B (ISDR B) – for use with OPR VI	100 mL	MD71530



SAMPLE PREPARATION FOR TOXICOLOGY AND DRUGS OF ABUSE (DOA) SCREENING



MagSiMUS-TOX^{PREP}

MagSiMUS-TOX^{PREP} kits are aimed at the cleanup of biological sample materials prior to LC-MS/MS or (U)HPLC analysis of e.g. benzodiazepines, metabolites, vitamins, drugs of abuse (amphetamines, cannabinoids, barbiturates, morphines), antidepressants and many other abusive drugs or substances.

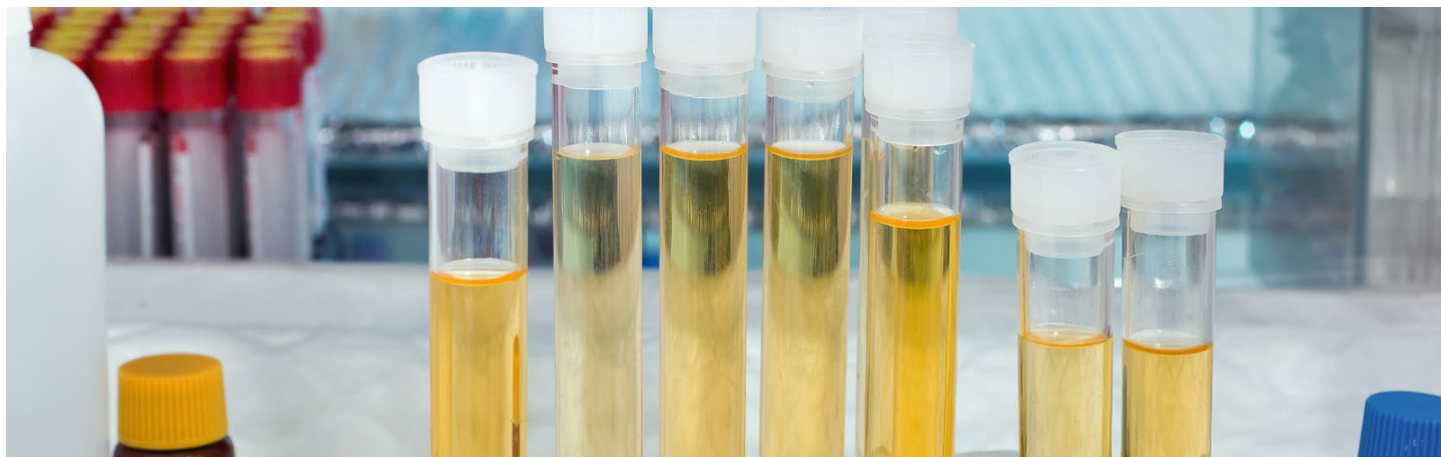
MagSiMUS-TOX^{PREP} kits are available in two magnetic bead type versions: Type I and Type II. Each of these 2 different magnetic bead mix types is optimized for the recovery of the analyte of interest. The sample preparation method is the same for both bead mix types. Organic Precipitation Reagents (OPR I or OPR VI) for the selected method should be ordered separately, as well as Lysis Buffer for the whole blood protocol.

For more information and selection of the right magnetic bead type, contact our technical support department.

Description	Pack Size	Catalogue No.
MagSiMUS-TOX^{PREP} Type I (contains Type I Particle Mix, ISDR A and ISDR B)	500 preps	MD03028
MagSiMUS-TOX^{PREP} Type II (contains Type II Particle Mix, ISDR A and ISDR B)	500 preps	MD03128
Materials that can be ordered separately		
Organic Precipitation Reagent I (OPR I); for acetonitrile-based precipitation	100 mL	MD71130
Organic Precipitation Reagent VI (OPR VI); for methanol-based precipitation	100 mL	MD71335
Lysis Buffer for whole blood; for lysis of whole blood samples	100 mL	MD71630
Urine Stabilization Buffer; for stabilization of pH in urine samples	10 mL	MD71730
Internal Standard Dilution Reagent A (ISDR A) – for use with OPR I	100 mL	MDRE00110100
Internal Standard Dilution Reagent B (ISDR B) – for use with OPR VI	100 mL	MD71530



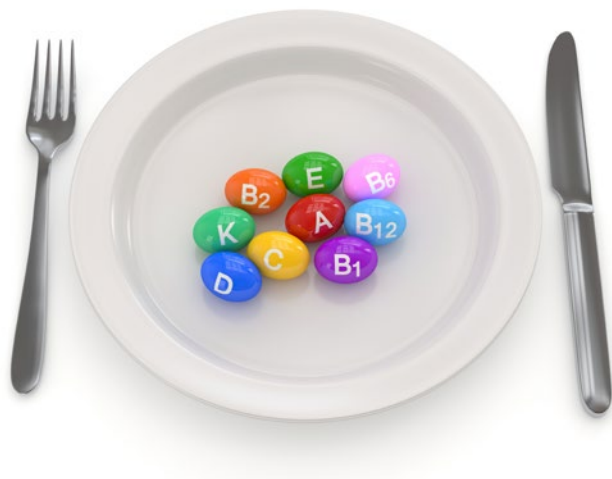
ACCESSORY PRODUCTS FOR MagSiMUS SAMPLE PREPARATION



Accessory reagents/buffers for the preparation and dilution of internal standards, precipitation and for sample lysis and stabilization steps in the **MagSiMUS** protocols. These reagents can be components of MagSiMUS kits, or should be ordered separately with MagSiMUS kits.

Description	Pack Size	Catalogue No.
Organic Precipitation Reagent I (OPR I); for acetonitrile-based precipitation	100 mL	MD71130
Organic Precipitation Reagent VI (OPR VI); for methanol-based precipitation	100 mL	MD71335
Internal Standard Dilution Reagent A (ISDR A) – for use with OPR I	100 mL	MDRE00110100
Internal Standard Dilution Reagent B (ISDR B) – for use with OPR VI	100 mL	MD71530
Lysis Buffer for whole blood; for lysis of whole blood samples	100 mL	MD71630
Urine Stabilization Buffer; for stabilization of pH in urine samples	10 mL	MD71730

MagSiMUS biological sample preparation kits need to be used in combination with manual or automated processing separators (see pages 27, 28).



Want more **MagSiMUS** biological sample preparation kits on the menu?

Yes you can.

Check our website regularly for the latest product updates and additions, and for Beta-tester programs

MagSi Products for Genomic Applications

MagSi BEADS FOR DNA ISOLATION AND PURIFICATION



MagSi beads can be used as solid support phase in DNA extraction and purification protocols by a simple bind/wash/elute principle. The products below are intended for own development of protocols and are suitable for various sample sources and buffer systems. MagSi beads for genomic applications are available with a range of physical properties and a silica or carboxyl modified surface.

For more information and selection of the right magnetic bead type for your genomics separation challenge, consult the **Genomics Selection Guide**, or contact our technical support department.

For screening purposes, all different beads are offered together in the MagSi-DNA Trial kit.

MagSi-DNA TRIAL KIT

A complete set of 8 types of MagSi beads for genomic applications, offered in a single kit for trial purposes in development of new extraction and purification protocols or replacement in existing protocols. The kit includes silica beads MagSi-DNA mf, MagSi-DNA 600, MagSi-DNA allround, MagSi-DNA 3.0 and carboxylated beads MagSi-DNA mf COOH, MagSi-DNA 600 COOH, MagSi-DNA allround COOH, MagSi-DNA 3.0 COOH.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA Trial kit	300 nm, 600 nm, 1.2 µm and 3.0 µm	100 mL	MD06028



SILICA BEADS FOR GENOMIC APPLICATIONS

Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow.



MagSi-DNA 600

Magnetic silica beads with larger surface area and long suspension time.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA 600	600 nm	2 mL	MD01016
MagSi-DNA 600	600 nm	10 mL	MD02016
MagSi-DNA 600	600 nm	100 mL	MD03016

MagSi-DNA ALLROUND

Magnetic silica beads with fast separation and medium suspension time.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA allround	1.2 µm	2 mL	MD01018
MagSi-DNA allround	1.2 µm	10 mL	MD02018
MagSi-DNA allround	1.2 µm	100 mL	MD03018

MagSi-DNA 3.0

Magnetic silica beads with very fast separation and shorter suspension time.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA 3.0	3.0 µm	2 mL	MD01022
MagSi-DNA 3.0	3.0 µm	10 mL	MD03022
MagSi-DNA 3.0	3.0 µm	100 mL	MD04022

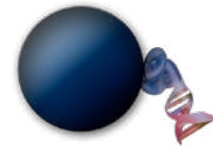
MagSi-DNA mf

Ferrimagnetic silica beads, developed for use in microfluidic and chip-based genomic setups but also well suited for tube or microplate setups.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA mf	300 nm	2 mL	MD0200010002
MagSi-DNA mf	300 nm	10 mL	MD0200010010
MagSi-DNA mf	300 nm	100 mL	MD0200010100

CARBOXYLATED SILICA BEADS FOR GENOMIC APPLICATIONS

Intended for nucleic acid isolation from various sources (blood, cells, bacteria etc.) for manual and automated work-flow. Under specific conditions, the carboxylated surface enables higher yield and purity from samples.



MagSi-DNA 600 COOH

Magnetic carboxylated silica beads with large surface area and long suspension time.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-DNA 600 COOH	600 nm	2 mL	MD01021
MagSi-DNA 600 COOH	600 nm	10 mL	MD02021
MagSi-DNA 600 COOH	600 nm	100 mL	MD03021

MagSi-DNA ALLROUND COOH

Magnetic carboxylated silica beads with fast separation and medium suspension time.

Description	Size	Pack Size	Catalogue No.
MagSi-DNA allround COOH	1.2 µm	2 mL	MD01020
MagSi-DNA allround COOH	1.2 µm	10 mL	MD02020
MagSi-DNA allround COOH	1.2 µm	100 mL	MD03020

MagSi-DNA 3.0 COOH

Magnetic silica beads with very fast separation and shorter suspension time.

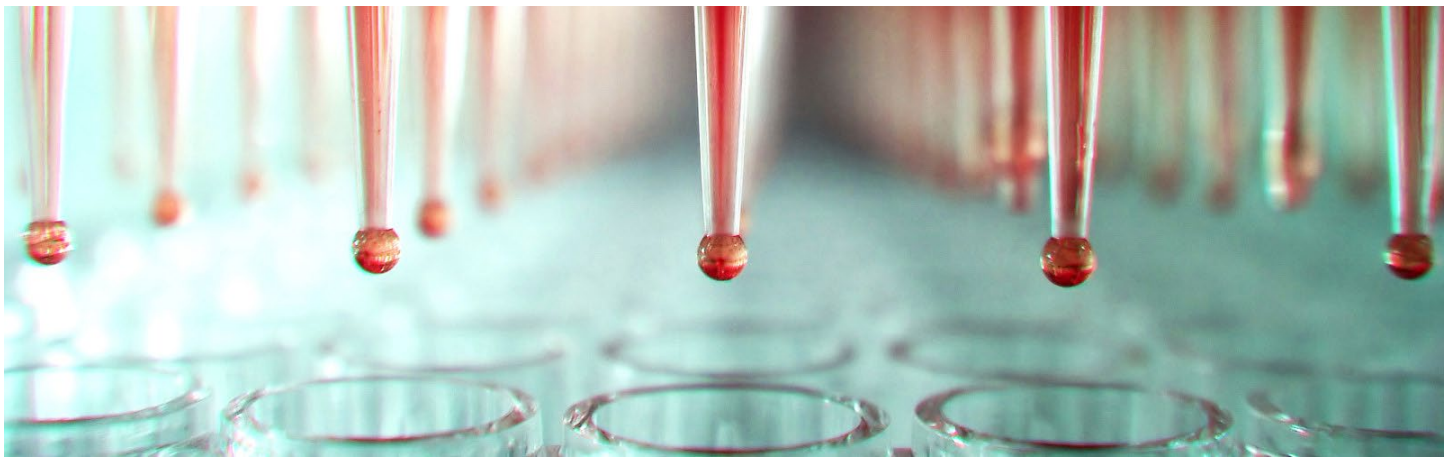
Description	Size	Pack Size	Catalogue No.
MagSi-DNA 3.0 COOH	3.0 µm	2 mL	MD01020
MagSi-DNA 3.0 COOH	3.0 µm	10 mL	MD02020
MagSi-DNA 3.0 COOH	3.0 µm	100 mL	MD03020

MagSi-DNA mf COOH

Ferrimagnetic silica beads, developed for use in microfluidic and chip-based genomic setups but also well suited for tube or microplate setups.

Description	Size	Pack Size	Catalogue No.
MagSi-DNA mf COOH	300 nm	2 mL	MD0200040002
MagSi-DNA mf COOH	300 nm	10 mL	MD0200040010
MagSi-DNA mf COOH	300 nm	100 mL	MD0200040100

MagSi KITS FOR DNA EXTRACTION



MagSi-DNA BODY FLUID

MagSi-DNA Body Fluid allows fast and cost-effective extraction of genomic DNA from blood, saliva or swab samples. The magnetic bead-based kit can be used on fresh or frozen whole blood, fresh or preserved saliva samples or swab wash solutions. The ready-to-use reagents and simple protocol are convenient in use and easy to automate. As a linear volume to volume ratio is used between sample and reagents, it is possible to use the kit in any situation where high quality genomic DNA is needed. DNA is suitable for use in downstream applications such as PCR, genetic typing, SNP and mutation analysis and forensic analysis.

Description	Pack Size	Catalogue No.
MagSi-DNA Body Fluid	96 preps	MDKT00140096
MagSi-DNA Body Fluid	10 x 96 preps	MDKT00140960

MagSi-NA PATHOGEN

MagSi-NA Pathogen is intended for manual and automated isolation of pathogenic nucleic acids (DNA and RNA) from a wide range of sample types e.g. blood, plasma, serum, urine, swab washes, tissue, feces. It allows safe handling of potentially infectious samples, and is designed to avoid sample-to-sample cross-contaminations. The obtained nucleic acids can be used directly as template for downstream applications such as PCR, qPCR, qRT-PCR or any kind of enzymatic reaction.

Description	Pack Size	Catalogue No.
MagSi-NA Pathogen	96 preps	MDKT00170096
MagSi-NA Pathogen	10 x 96 preps	MDKT00170960



MagSi-DNA VEGETAL

MagSi-DNA Vegetal kits allow for extraction of genomic DNA from plant samples. After a lysis step, DNA is bound to magnetic beads and after a series of washing steps in which unwanted components are removed, the DNA is finally released in an elution step.

MagSi-DNA Vegetal II is optimized for seed samples. The lysis chemistry is ideal for releasing nucleic acids from embryos in seeds that are rich in starch and fats, allowing optimal release of the DNA to be isolated.

MagSi-DNA Vegetal III is optimized for DNA extraction from leaves. This lysis chemistry is ideal for leaf samples with high levels of secondary metabolites such as polyphenols and polysaccharides. MagSi-DNA Vegetal III can be used with alternative Lysis Buffer VG that is optimized for seeds. Therefore this offers a flexible solution for optimal extraction of both sample types in a single extraction run.

MagSi-DNA Vegetal kits are available in 96 and 10 x 96 preps kit sizes, can also be offered in a customized presentation with volumes of each of their components adjusted to facilitate your specific extraction requirements. Buffer components can be offered in bulk presentations of 1 and 5 Liter. We will advise you how to fine-tune the protocol for each of the kit components in your (automated) environment, and come to the most cost-effective solution.

MagSi-DNA Vegetal

MagSi-DNA Vegetal kits allow you to extract DNA from seeds and leaves of a broad range of plant species (e.g. cucumber, bell pepper, tomato, wheat, sugar beet, potato, chicory, maize, chrysanthemum or gerbera).

Description	Pack Size	Catalogue No.
MagSi-DNA Vegetal II	96 preps	MDKT00160096
MagSi-DNA Vegetal II	10 x 96 preps	MDKT00160960
MagSi-DNA Vegetal III	96 preps	MDKT00190096
MagSi-DNA Vegetal III	10 x 96 preps	MDKT00190960



MagSi-DNA ANIMAL

MagSi-DNA Animal allows fast and cost-effective extraction of genomic DNA from various samples like blood, semen, hairs, saliva/swabs or lysed tissue. This universal DNA purification kit is optimized to extract DNA from sample materials with the highest purity and delivers DNA which is suitable for genotyping assays or other PCR based analyses. The extraction chemistry has been validated on different species, e.g. horse, swine, dog, cattle and can be customized to meet any specific requirements of yields, purity, working volumes.

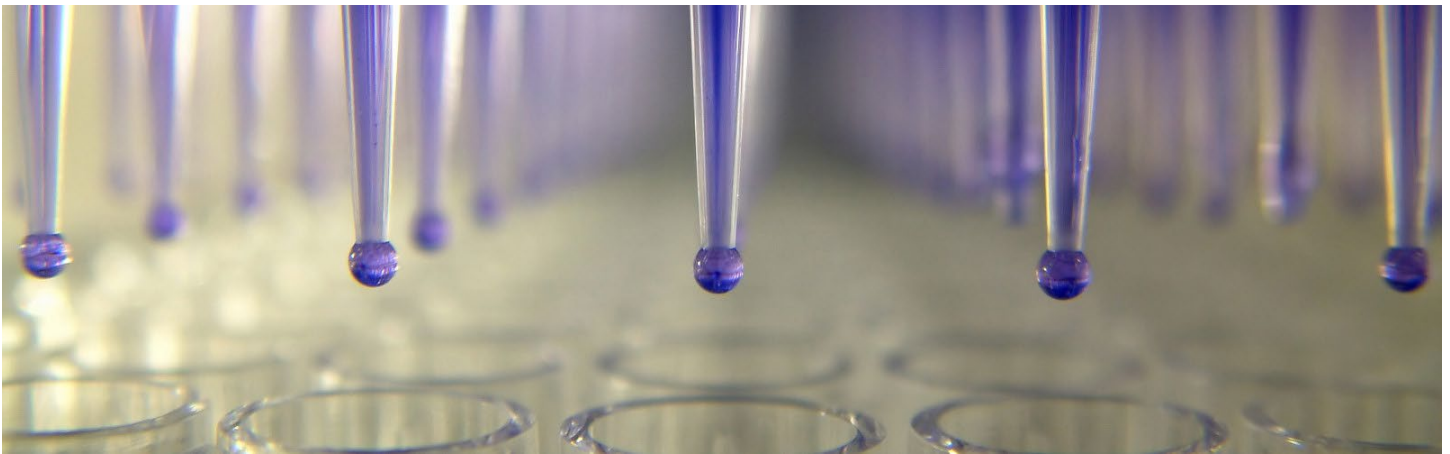
Description	Pack Size	Catalogue No.
MagSi-DNA Animal	96 preps	MDKT00150096
MagSi-DNA Animal	10 x 96 preps	MDKT00150960

ACCESSORY MATERIALS TO BE OFFERED WITH MagSi KITS FOR DNA EXTRACTION

All DNA extraction kits include a final drying step to remove traces of ethanol before DNA elution. Wash Buffer III eliminates this step, resulting in faster protocols and DNA with higher purity.

Description	Pack Size	Catalogue No.
Wash Buffer III	1000 mL	MDBU00111000
Wash Buffer III	5000 mL	MDBU00115000

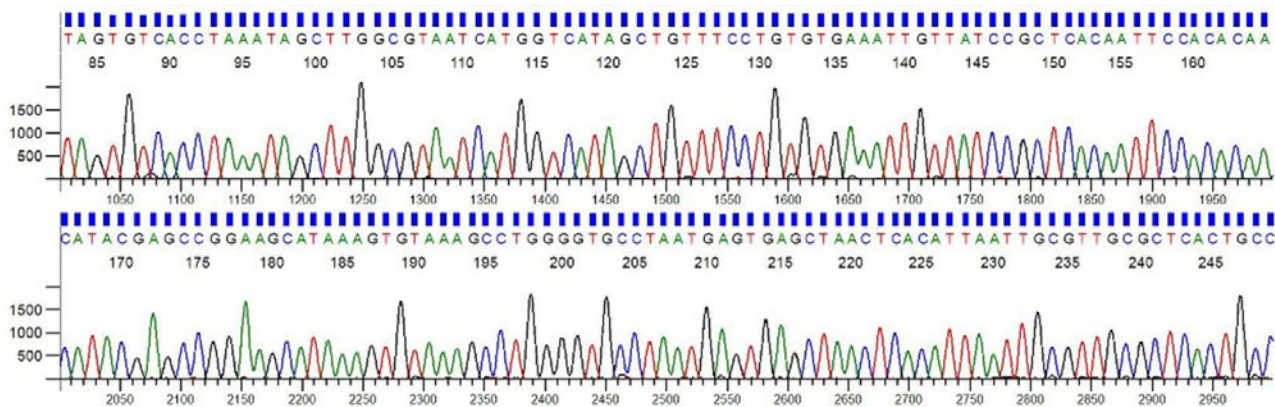
MagSi KITS FOR PURIFICATION OF SEQUENCING AND PCR REACTIONS

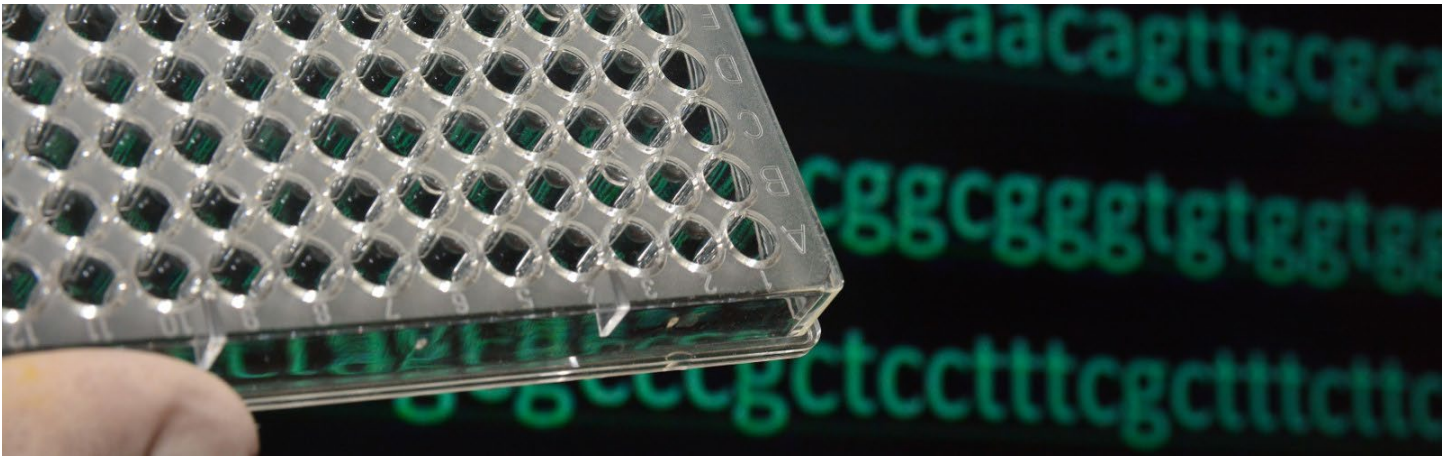


MagSi-DT REMOVAL

MagSi-DT Removal provides an efficient solution for Dye-Terminator removal from BigDye® sequencing reactions. The kit is optimized for use on Biomek® Laboratory Automation Workstations and Hamilton® Microlab® STAR™Line. Post-cycle sequencing reaction contaminants that interfere with sequencing analysis (in particular unincorporated dyes) are removed by a rapid cleanup method without centrifugation or filtration. MagSi-DT Removal can be used in high-throughput processes with 96 and 384 well plates.

Description	Pack Size	Catalogue No.
MagSi-DT Removal	8 mL	MDKT00040008
MagSi-DT Removal	50 mL	MDKT00040050
MagSi-DT Removal	500 mL	MDKT00040500

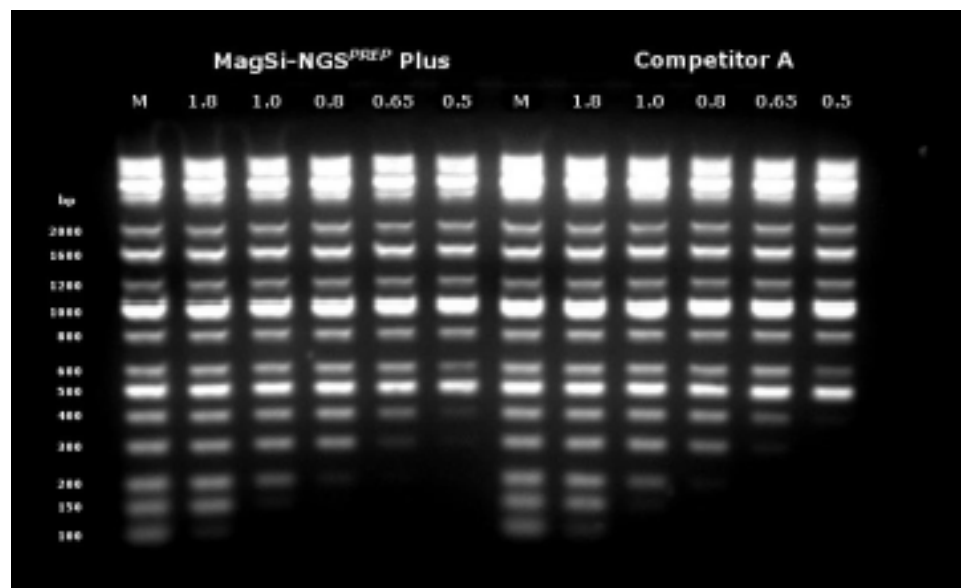




MagSi-NGS^{PREP} PLUS

MagSi-NGS^{PREP} Plus provides a convenient tool for ultra-fast and efficient purification and size selection of DNA products. The kit is optimized for use on Biomek[®] Laboratory Automation Workstations and Hamilton[®] Microlab STARline. MagSi-NGS^{PREP} Plus allows either non-selective binding, or size-targeted binding of double-stranded DNA fragments ranging from 80 – 1000 bp with specific reagent volume to sample volume ratio's. By increasing the volume of MagSi-NGS^{PREP} Plus, the efficiency of binding smaller fragments increases. This enables the user to selectively keep or discard undesired fragment sizes. MagSi-NGS^{PREP} Plus' flexible protocols are easy to automate for high-throughput processing.

Description	Pack Size	Catalogue No.
MagSi-NGS ^{PREP} Plus	5 mL	MDKT00010005
MagSi-NGS ^{PREP} Plus	75 mL	MDKT00010075
MagSi-NGS ^{PREP} Plus	500 mL	MDKT00010500



MagSi Products for Immunoassays



STREPTAVIDIN BEADS FOR IMMUNOASSAYS

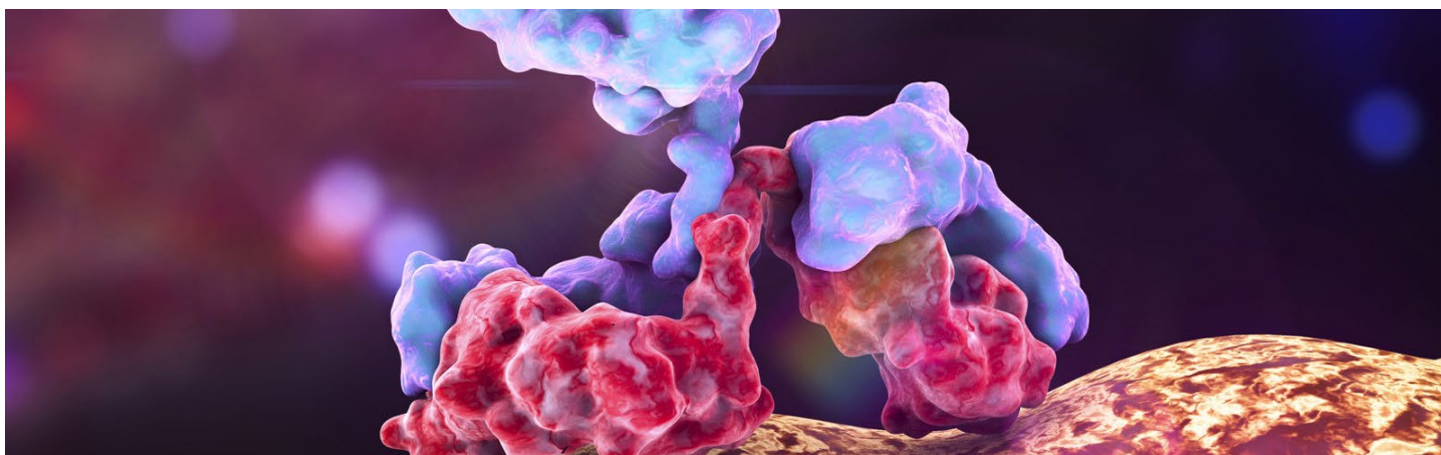
Magnetic particles are used as a solid support phase in immunoassays. MagSi-STA are superparamagnetic silica beads with a surface coating of streptavidin for use with biotinylated antibodies.

MagSi-STA TRIAL KIT

The MagSi-STA Trial kit offers the opportunity of screening many types of streptavidin beads in parallel. The kit is especially useful when required specifications for magnetic beads are not known. This kit includes 1 ml of each of the the 8 different MagSi-STA products (MagSi-STA 600, MagSi-STA 600 BI, MagSi-STA 1.0, MagSi-STA 1.0 L, MagSi-STA 1.0 TL, MagSi-STA 1.0 TS, MagSi-STA 3.0 L and MagSi-STA 3.0 TL) and is intended for evaluation purposes during trial phase of developing new assays, or bead replacement in existing assays.

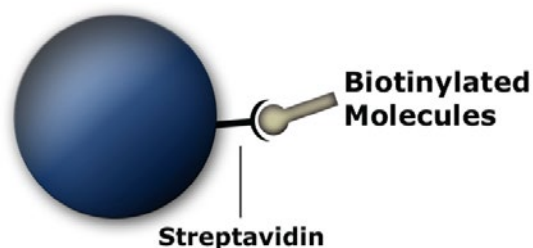
Description	Bead Size	Pack Size	Catalogue No.
MagSi-STA Trial kit	600 nm, 1.0 μm , 3.0 μm	8 mL	MD50001

The MagSi-STA Trial kit is also an excellent tool for feedback on a customized bead-type, which would fit any immunoassay in an optimal manner. Contact us during and after your trials to discuss the customized options.



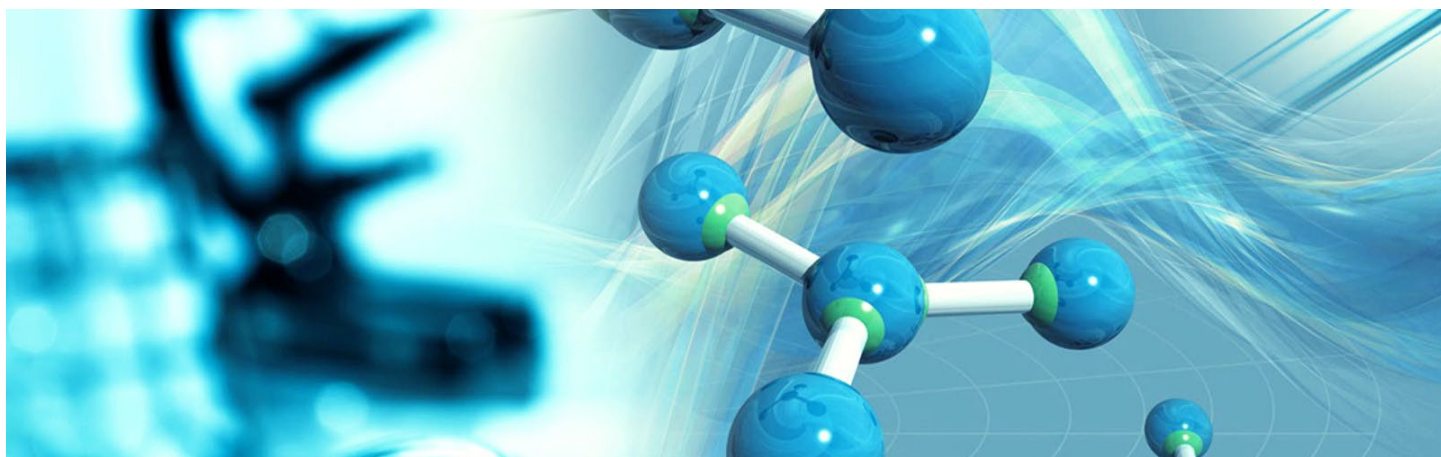
MagSi-STA

Magnetic silica particles with high quality streptavidin covalently attached to the bead surface. Applications include immunoassays and capture or purification of biotinylated molecules. Various types of this product are available, with different mean size, streptavidin coupling chemistry and binding capacity. All parameters can be customized on request.

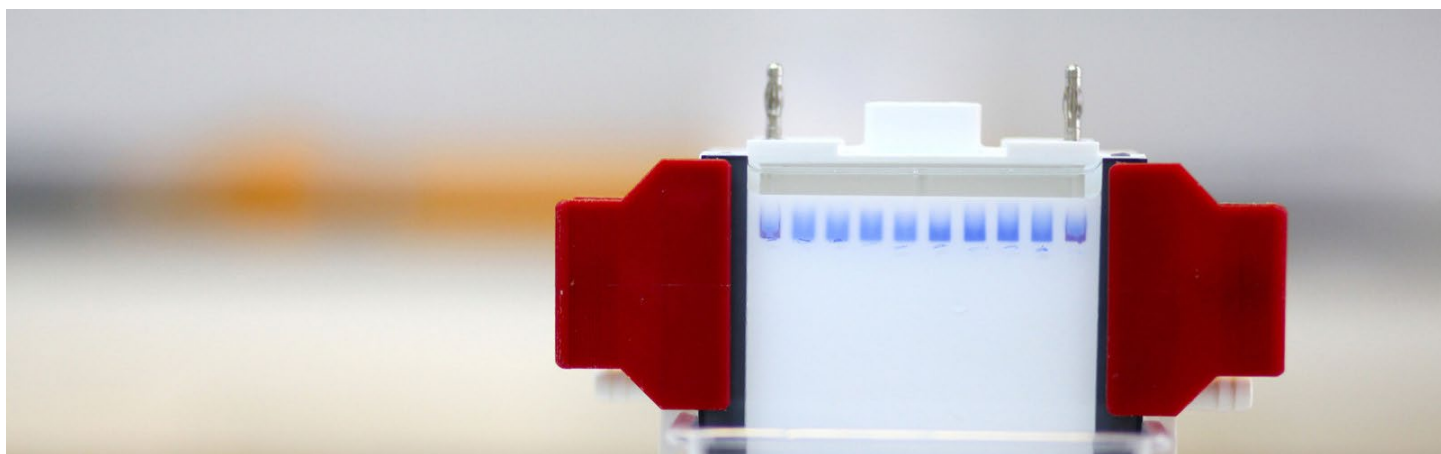


Description	Bead Size	Type*	Binding capacity (pmol biotin/mg)	Pack Size	Catalogue No.
MagSi-STA 600	600 nm	C	3500-5000	2 mL	MD16001
MagSi-STA 600	600 nm	C	3500-5000	10 mL	MD18001
MagSi-STA 600	600 nm	C	3500-5000	100 mL	MD19001
MagSi-STA 600 BI	600 nm	C	6000-6800	2 mL	MD21001
MagSi-STA 600 BI	600 nm	C	6000-6800	10 mL	MD23001
MagSi-STA 600 BI	600 nm	C	6000-6800	100 mL	MD24001
MagSi-STA 1.0	1.0 µm	C	3500-5000	2 mL	MD01001
MagSi-STA 1.0	1.0 µm	C	3500-5000	10 mL	MD03001
MagSi-STA 1.0	1.0 µm	C	3500-5000	100 mL	MD04001
MagSi-STA 1.0 L	1.0 µm	C	1200-2000	2 mL	MD06001
MagSi-STA 1.0 L	1.0 µm	C	1200-2000	10 mL	MD07001
MagSi-STA 1.0 L	1.0 µm	C	1200-2000	100 mL	MD08001
MagSi-STA 1.0 TL	1.0 µm	T	1200-2000	2 mL	MD25001
MagSi-STA 1.0 TL	1.0 µm	T	1200-2000	10 mL	MD26001
MagSi-STA 1.0 TL	1.0 µm	T	1200-2000	100 mL	MD27001
MagSi-STA 1.0 TS	1.0 µm	T	3500-5000	2 mL	MD29001
MagSi-STA 1.0 TS	1.0 µm	T	3500-5000	10 mL	MD30001
MagSi-STA 1.0 TS	1.0 µm	T	3500-5000	100 mL	MD31001
MagSi-STA 3.0 L	3.0 µm	C	700-1200	2 mL	MD33001
MagSi-STA 3.0 L	3.0 µm	C	700-1200	10 mL	MD34001
MagSi-STA 3.0 L	3.0 µm	C	700-1200	100 mL	MD35001
MagSi-STA 3.0 TL	3.0 µm	T	500-900	2 mL	MD37001
MagSi-STA 3.0 TL	3.0 µm	T	500-900	10 mL	MD38001
MagSi-STA 3.0 TL	3.0 µm	T	500-900	100 mL	MD39001

* Type refers to the applied streptavidin coupling chemistry. C (Carboxyl): This type is intended for applications which require a relatively hydrophilic surface and also includes a spacer. T (Tosyl): This type is intended for applications which require beads which are more hydrophobic.



MagSi Products for Protein and Peptide Applications

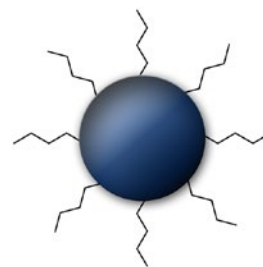


For more information and selection of the right magnetic bead type for your protein separation challenge, consult the **Proteomics Selection Guide**, or contact our technical support department.

SAMPLE PREPARATION FOR PROTEIN AND PEPTIDE ANALYSIS

MagSi-PROTEOMICS

Magnetic silica particles with C4, C8 or C18 modified surface for sample preparation prior to mass spectrometry analysis. The relatively low hydrophobicity of MagSi-proteomics C4 allows for the purification and fractionation of larger biomolecules like proteins. MagSi-proteomics C8 have an intermediate hydrophobicity and are suitable for sample preparation in proteomic profiling and biomarker research. MagSi-proteomics C18 are ideal for the purification, concentration and desalting of peptides and protein digests.



Description	Pack Size	Catalogue No.
MagSi-proteomics C4	2 mL	MD01014
MagSi-proteomics C4	10 mL	MD02014
MagSi-proteomics C4	100 mL	MD03014
MagSi-proteomics C8	2 mL	MD01015
MagSi-proteomics C8	10 mL	MD02015
MagSi-proteomics C8	100 mL	MD03015
MagSi-proteomics C18	2 mL	MD01009
MagSi-proteomics C18	10 mL	MD03009
MagSi-proteomics C18	100 mL	MD04009

MagSi-PROTEOMICS

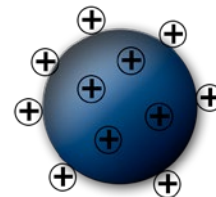
Magnetic silica particles with weak cation exchange surface (WCX). MagSi-WCX is ideal for the reduction of protein or peptide complexity. Applications include sample preparation and pre-fractionation prior to mass spectrometry or SDS-PAGE analysis, biomarker analysis and serum/ plasma profiling.



Description	Pack Size	Catalogue No.
MagSi-WCX	2 mL	MD01023
MagSi-WCX	10 mL	MD02023
MagSi-WCX	100 mL	MD03023

MagSi-WAX

Magnetic silica particles with weak anion exchange surface (WAX). MagSi-WAX is ideal for the reduction of protein or peptide complexity. Applications include sample preparation and pre-fractionation prior to mass spectrometry or SDS-PAGE analysis, biomarker analysis and serum /plasma profiling.



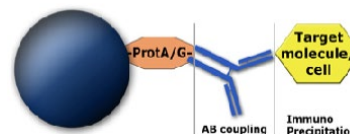
Description	Pack Size	Catalogue No.
MagSi-WAX	2 mL	MD01025
MagSi-WAX	10 mL	MD02025
MagSi-WAX	100 mL	MD03025

IMMUNOPRECIPITATION & IgG PURIFICATION

Protein A and Protein G bind to Fc regions of immunoglobulins. After binding onto magnetic beads with a coating of Protein A or Protein G, immobilized immunoglobulins can be used for immunoprecipitation of various biomolecules, or can be eluted in a native or denatured state. The magnetic particles with a mean size of 600 nm or 1.0 μm are best used for IgG purification and immunoprecipitation. The particles with a mean size of 3.0 μm are especially suitable for cell capture applications.

MagSi-PROTEIN A

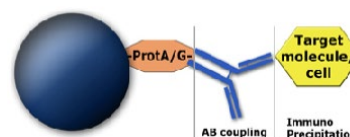
Magnetic silica particles with high quality recombinant Protein A covalently bound to the particle surface.



Description	Bead Size	Pack Size	Catalogue No.
MagSi-protein A 600	600 nm	1 mL	MD10011
MagSi-protein A 600	600 nm	5 mL	MD11011
MagSi-protein A 1.0	1.0 μm	1 mL	MD01011
MagSi-protein A 1.0	1.0 μm	5 mL	MD02011
MagSi-protein A 3.0	3.0 μm	1 mL	MD41011
MagSi-protein A 3.0	3.0 μm	5 mL	MD42011

MagSi-PROTEIN G

Magnetic silica particles with high quality recombinant Protein G covalently bound to the particle surface.



Description	Bead Size	Pack Size	Catalogue No.
MagSi-protein G 600	600 nm	1 mL	MD10012
MagSi-protein G 600	600 nm	5 mL	MD11012
MagSi-protein G 1.0	1.0 μm	1 mL	MD01012
MagSi-protein G 1.0	1.0 μm	5 mL	MD02012
MagSi-protein G 3.0	3.0 μm	1 mL	MD41012
MagSi-protein G 3.0	3.0 μm	5 mL	MD42012

MagSi Tools for Research & Development Applications



MagSi-TOOLS

MagSi-Tools are surface activated magnetic beads for immobilization of proteins (antibodies, enzymes), peptides, nucleic acids or other molecules of interest. Different surface modifications allow for choosing the optimal product for the right molecule to be coupled, and for the intended application. The MagSi platform has a broad range of functionalization possibilities such as COOH, NH₂, SH, CHO, tosyl, hydrazide and epoxy. MagSi-Tools products are available with 600 nm, 1.0 µm or 3.0 µm mean diameter.

MagSi-S

Magnetic silica particles for own development use.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S 600	600 nm	2 mL	MD16003
MagSi-S 600	600 nm	10 mL	MD18003
MagSi-S 600	600 nm	100 mL	MD19003
MagSi-S 1.0	1.0 µm	2 mL	MD01003
MagSi-S 1.0	1.0 µm	10 mL	MD03003
MagSi-S 1.0	1.0 µm	100 mL	MD04003
MagSi-S 3.0	3.0 µm	2 mL	MD41003
MagSi-S 3.0	3.0 µm	10 mL	MD43003
MagSi-S 3.0	3.0 µm	100 mL	MD44003

MagSi-S COOH

Magnetic silica particles with a carboxyl modified surface. For carbodiimide coupling with NH₂-containing molecules.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S COOH 600	600 nm	2 mL	MD16004
MagSi-S COOH 600	600 nm	10 mL	MD18004
MagSi-S COOH 600	600 nm	100 mL	MD19004
MagSi-S COOH 1.0	1.0 µm	2 mL	MD01004
MagSi-S COOH 1.0	1.0 µm	10 mL	MD03004
MagSi-S COOH 1.0	1.0 µm	100 mL	MD04004
MagSi-S COOH 3.0	3.0 µm	2 mL	MD41004
MagSi-S COOH 3.0	3.0 µm	10 mL	MD43004
MagSi-S COOH 3.0	3.0 µm	100 mL	MD44004

MagSi-S NH₂

Magnetic silica particles with NH₂ modified surface. Intended for carbodiimide coupling chemistry with COOH-containing molecules or aldehyde coupling chemistry.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S NH ₂ 600	600 nm	2 mL	MD16005
MagSi-S NH ₂ 600	600 nm	10 mL	MD18005
MagSi-S NH ₂ 600	600 nm	100 mL	MD19005
MagSi-S NH ₂ 1.0	1.0 µm	2 mL	MD01005
MagSi-S NH ₂ 1.0	1.0 µm	10 mL	MD03005
MagSi-S NH ₂ 1.0	1.0 µm	100 mL	MD04005
MagSi-S NH ₂ 3.0	3.0 µm	2 mL	MD41005
MagSi-S NH ₂ 3.0	3.0 µm	10 mL	MD43005
MagSi-S NH ₂ 3.0	3.0 µm	100 mL	MD44005

MagSi-S SH

Magnetic silica particles with modified surface for SH coupling chemistry.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S SH 600	600 nm	10 mL	MD18006
MagSi-S SH 600	600 nm	100 mL	MD19006
MagSi-S SH 1.0	1.0 µm	10 mL	MD03006
MagSi-S SH 1.0	1.0 µm	100 mL	MD04006
MagSi-S SH 3.0	3.0 µm	10 mL	MD43006
MagSi-S SH 3.0	3.0 µm	100 mL	MD44006

MagSi-S CHO

Magnetic silica particles with aldehyde modified surface. Intended for aldehyde coupling chemistry with NH₂-containing molecules.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S CHO 600	600 nm	10 mL	MD18007
MagSi-S CHO 600	600 nm	100 mL	MD19007
MagSi-S CHO 1.0	1.0 µm	10 mL	MD03007
MagSi-S CHO 1.0	1.0 µm	100 mL	MD04007
MagSi-S CHO 3.0	3.0 µm	10 mL	MD43007
MagSi-S CHO 3.0	3.0 µm	100 mL	MD44007



MagSi-S TOSYL

Magnetic silica particles with tosyl modified surface. Intended for tosyl coupling chemistry with antibodies and proteins.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S Tosyl 600	600 nm	2 mL	MD16008
MagSi-S Tosyl 600	600 nm	10 mL	MD18008
MagSi-S Tosyl 600	600 nm	100 mL	MD19008
MagSi-S Tosyl 1.0	1.0 μ m	2 mL	MD01008
MagSi-S Tosyl 1.0	1.0 μ m	10 mL	MD03008
MagSi-S Tosyl 1.0	1.0 μ m	100 mL	MD04008
MagSi-S Tosyl 3.0	3.0 μ m	2 mL	MD41008
MagSi-S Tosyl 3.0	3.0 μ m	10 mL	MD43008
MagSi-S Tosyl 3.0	3.0 μ m	100 mL	MD44008

MagSi-S HYDRAZIDE

Magnetic silica particles with hydrazide modified surface. Intended for immobilization of antibodies, glycoproteins or other aldehyde-containing molecules.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S Hydrazide 600	600 nm	2 mL	MD16013
MagSi-S Hydrazide 600	600 nm	10 mL	MD18013
MagSi-S Hydrazide 600	600 nm	100 mL	MD19013
MagSi-S Hydrazide 1.0	1.0 μ m	2 mL	MD01013
MagSi-S Hydrazide 1.0	1.0 μ m	10 mL	MD03013
MagSi-S Hydrazide 1.0	1.0 μ m	100 mL	MD04013
MagSi-S Hydrazide 3.0	3.0 μ m	2 mL	MD41013
MagSi-S Hydrazide 3.0	3.0 μ m	10 mL	MD43013
MagSi-S Hydrazide 3.0	3.0 μ m	100 mL	MD44013

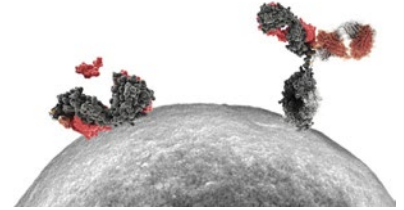
MagSi-S EPOXY

Magnetic silica particles with epoxy modified surface. Intended for coupling to enzymes and other NH₂-containing molecules.

Description	Bead Size	Pack Size	Catalogue No.
MagSi-S Epoxy 600	600 nm	2 mL	MD16010
MagSi-S Epoxy 600	600 nm	10 mL	MD18010
MagSi-S Epoxy 600	600 nm	100 mL	MD19010
MagSi-S Epoxy 1.0	1.0 μ m	2 mL	MD01010
MagSi-S Epoxy 1.0	1.0 μ m	10 mL	MD03010
MagSi-S Epoxy 1.0	1.0 μ m	100 mL	MD04010
MagSi-S Epoxy 3.0	3.0 μ m	2 mL	MD41010
MagSi-S Epoxy 3.0	3.0 μ m	10 mL	MD43010
MagSi-S Epoxy 3.0	3.0 μ m	100 mL	MD44010

MagSi-DIRECT READY-TO-USE COUPLING KITS

MagSi-Direct enables coupling of the biological molecule of your choice to magnetic beads. The coating of MagSi-Direct acts as a nanoglue, using electron donation from electron-rich groups of the target molecule including -COOH, -CONH-, -NH₂, -NHR-, -NR₂, -OH and -SH. As a result, MagSi-Direct allows coupling of a wide variety of medium-large biomolecules, from non-protein molecules to proteins such as antibodies, cell receptor proteins, lectins, peptide aptamers and enzymes. The coating technology has a maximum interaction with large biomolecules.



MagSi-DIRECT 1.0

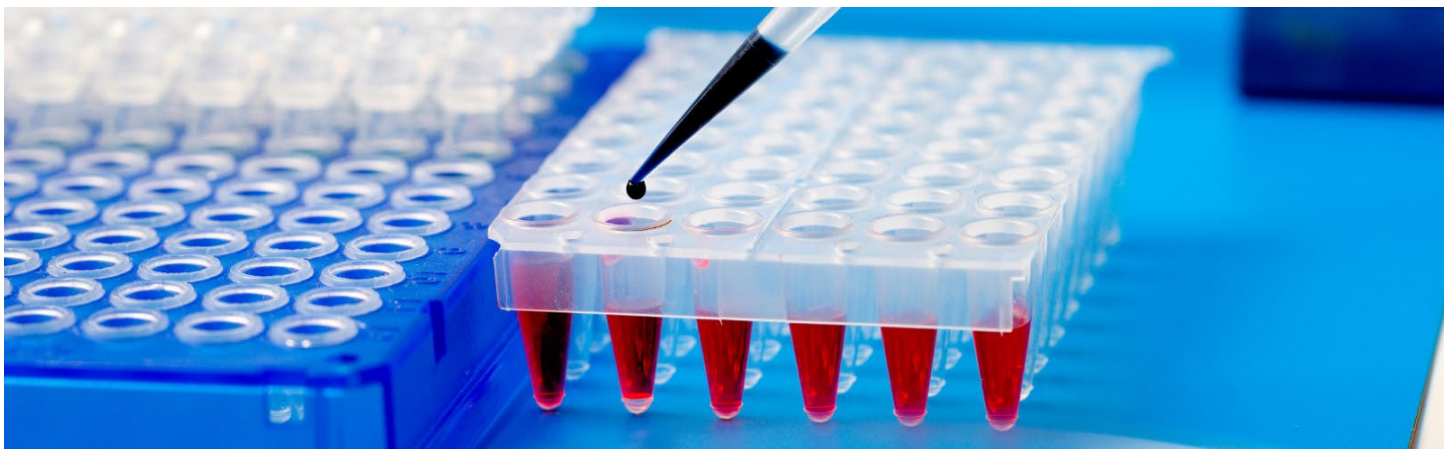
With a mean diameter of 1.0 μm , MagSi-Direct 1.0 is especially suitable for immunoassays and capture reactions in volumes $\leq 1000 \mu\text{L}$. Includes ready-to-use MagSi-Direct 1.0 beads, 10x Immobilization Buffer and Blocking Buffer.

Description	Pack Size	Catalogue No.
MagSi-Direct 1.0	Small (contains 2 mL beads)	MD01029
MagSi-Direct 1.0	Medium (contains 10 mL beads)	MD03029

MagSi-DIRECT 3.0

With a mean diameter of 1.0 μm , MagSi-Direct 1.0 is especially suitable for immunoassays and capture reactions in volumes $\leq 1000 \mu\text{L}$. Includes ready-to-use MagSi-Direct 1.0 beads, 10x Immobilization Buffer and Blocking Buffer.

Description	Pack Size	Catalogue No.
MagSi-Direct 3.0	Small (contains 2 mL beads)	MD41029
MagSi-Direct 3.0	Medium (contains 10 mL beads)	MD43029



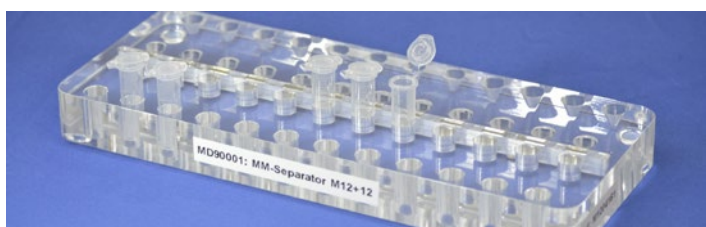
Magnetic Separators



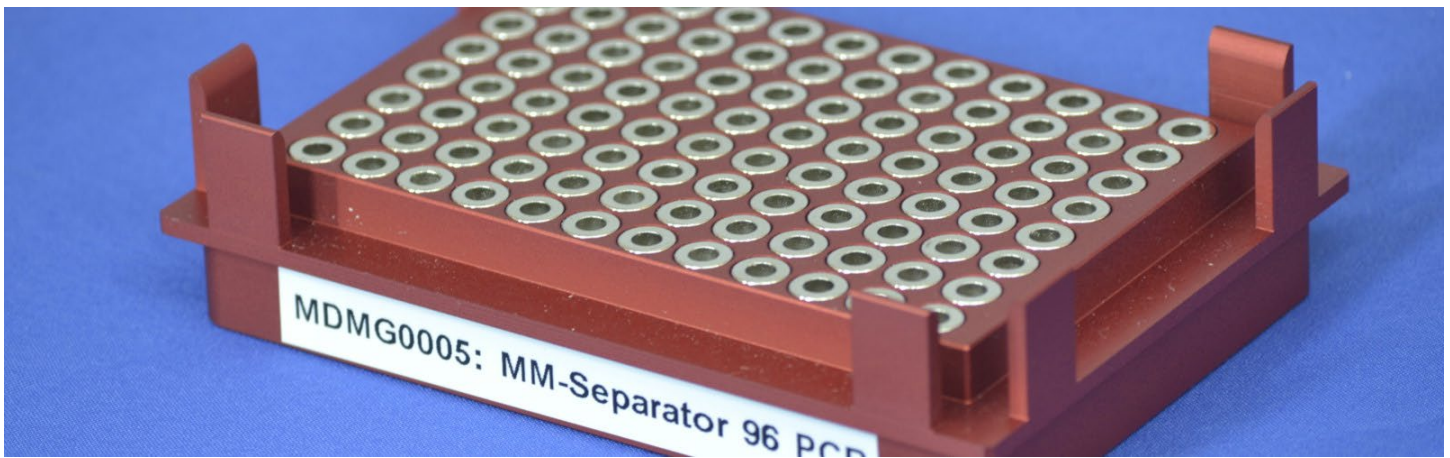
MAGNETIC SEPARATORS FOR MANUAL USE

These separators are intended for manual processing in microtubes, microplates and PCR tube-strips. The separators are available as transparent acrylic versions for optimal visual inspection needs and in chemically resistant polyoxymethylene (POM) for routine use of organic solvents. For detailed information about the resistency towards commonly used solvents, please contact our technical support department.

Description	Pack Size	Catalogue No.
MM-Separator M12 + 12	1 pack	MD90001
MM-Separator M12 + 12 P	1 pack	MDMG0001
MM-Separator M96	1 pack	MD90002
MM-Separator M96 P	1 pack	MDMG0002
MM-Separator PCR strip adapter	1 pack	MD90003
MM-Separator PCR strip adapter P	1 pack	MDMG0003

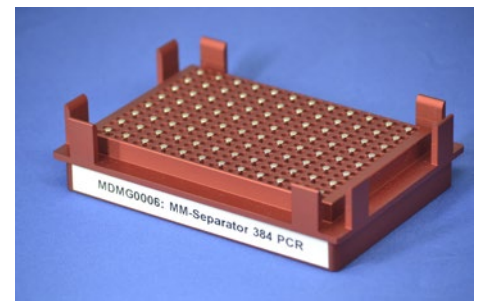
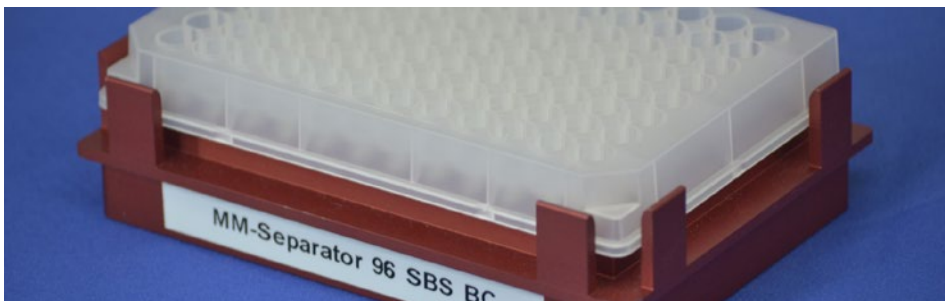


MAGNETIC SEPARATORS FOR AUTOMATED PROCESSING



These separators are intended for automated processing of MagSi magnetic beads and MagSiMUS biological sample preparation kits in 96, 384 or deepwell microplates. They include a SBS standard registration base for easy placement on liquid handling instruments (e.g. the MagSiMUSDX), and are suitable for separation in PCR plates and many other microplates. MM-Separator 32 FlipTube® is intended for use with the MagSiMUSDX or other automated protocols using magnetic beads in FlipTubes®.

Description	Pack Size	Catalogue No.
MM-Separator 96 PCR	1 pack	MDMG0005
MM-Separator 384 PCR	1 pack	MDMG0006
MM-Separator 96 SBS BC	1 pack	MDMG0007
MM-Separator 32 FlipTube® BC	1 pack	MDMG0008
MM-Separator 32 FlipTube® SC L	1 pack	MDMG0009
MM-Separator 96 DeepWell	1 pack	MDMG0013
MM-Separator 384 DeepWell	1 pack	MDMG0014



Services

MagCUSTOM

What if our catalog products do not meet your needs? Suppose you have the antibody to capture your specific cells or proteins; you have a readout system at hand to detect different fluorescent dyes at different wavelengths, but the fluorescent signal is under the detection limit. In this specific case, but also for other situations, we can provide a customized, rapid solution for you: MagCustom.

Our tailor made magnetic beads are available in small scales and at reasonable prices. No matter if you have to couple one or two different fluorescent dyes, a specific peptide, protein, or antibody. AMSBIO will find a solution to develop the product for your application.

We can develop individual customer solutions within a very short time cycle. These flexible solutions may vary from small batch size prototype productions up-to full scale productions including complete QA/QC development.

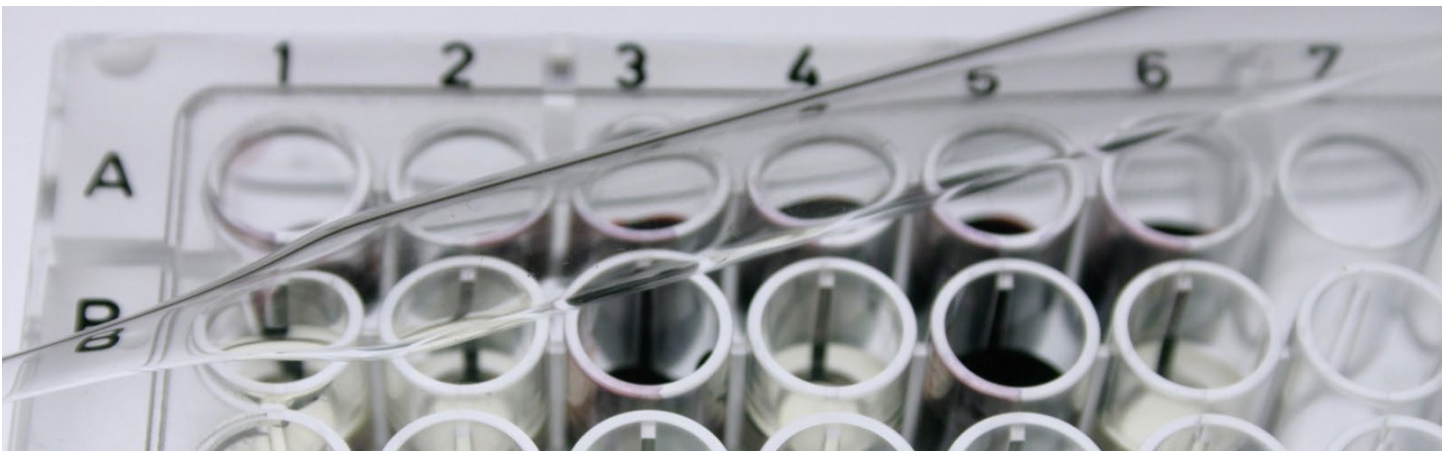
Tailor made magnetic – rapid prototyping and standardization.

MagCustom Feasibility Study, Project Definition and MagCustom Production are separate steps in this service.

AUTOMATION

We offer on-site service and support for your magnetic automation needs. Our service and software engineers will help you setup your automation protocols for your methods at your location, and our scientific advisors can give you method development support in the same manner. Integration of automation in your LIMS is another service we offer.

Please contact us to learn more about our **MagCustom** and **Automation** offering.



General Information

TRADEMARKS

FlipTube® is a registered trademark of GEMÜ GmbH Medical Plastics Processing Division

BigDye® is a registered trademark of PE Corp

Biomek® is registered trademark of Beckman Coulter, Inc

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V1.5



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