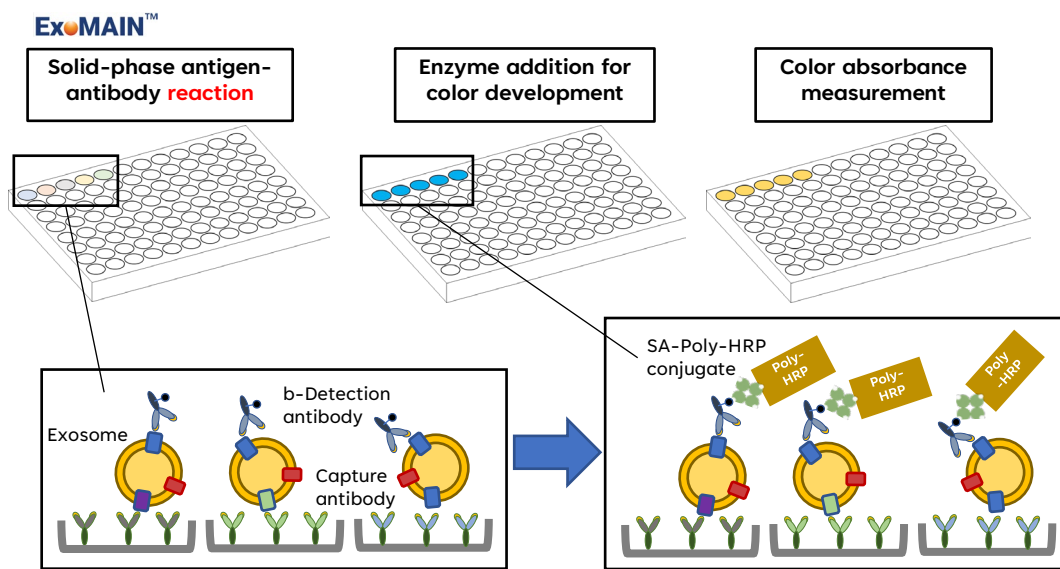


Exosome Population, Subpopulation Immunoassay Kit

ExoMAIN™ ELISA kit



Qualitative, quantitative analysis for exosome based on 'Sandwich immunoassay'

Exosome Biomarker Discovery Experimental Tool using General Laboratory Equipment

Through the supply of ExoMAIN™ ELISA kit, SOL Bio Corp. provides a high sensitivity analysis tool for exosome subpopulations (with common exosomal markers) based on sandwich ELISA that uses antibodies specific to pan-exosome tetraspanins

- 1) **Pre-processing of exosome samples:** preparation of exosome bulk populations contained in samples such as serum
- 2) **Sandwich complex formation with an exosome subpopulation:** antigen-antibody reactions for capture and detection of target pan-exosome tetraspanins
- 3) **Signal generation:** color development from Poly-HRP used as tracer and measurement of the absorbance

In this way, the ELISA kit can be used for the quantification of an exosome subpopulation in sample, and further be used under the general laboratory environment for the following ends, provided it is combined with other biomarker-specific detection antibodies (ExoDAB™) and/or subpopulation isolation kits (NeutraRelease™):

- ✓ Distribution of exosome subclasses within exosome subpopulation samples
- ✓ Analysis of exosome heterogeneity as a characteristic unique to the origin of an exosome sample and mapping of specific surface protein markers

ExoMAIN™ Exosome Immunoassay Kit

Sub M1 (CD9) ELISA kit (96 tests/1 kit)



Title	Component name	Function	Container
Reagent 1	Biotinylated Anti-CD9 Antibody* (20X)	Binding to CD9 on the exosome captured on the microwell surface	0.6 mL × 1 tube
Reagent 2	Streptavidin Poly-HRP20 Conjugate (100X)	Signal generation proportional to the exosome bound	0.12 mL × 1 tube
Reagent 3	TMB (3,3',5,5'-Tetramethyl-benzidine) Substrate	Colorimetric signal generation	24 mL × 1 bottle
Reagent 4	Stop Solution (Sulfuric acid)	Stopping the signal generation	6 mL × 1 bottle
Reagent 5	Washing Buffer (10X)	Removing the unbound components from the microwell	30 mL × 1 bottle
Reagent 6	Dilution Buffer	Diluting reagents 1, 2, and test sample	25 mL × 2 bottles
Microwell Plate	Anti-CD9 Antibody-coated Microwell**	Capturing the CD9-positive exosome on the microwell surface	1 plate × 96 wells

* The specificity of the biotinylated antibody in Reagent 1 may be changed according to the exosome quantification target.

** The specificity of the antibody coated on the microwell is matched to the exosome quantification target in each kit.

ExoMAIN™ immunoassay kit for pan-exosome tetraspanins

Product Name	ExoMAIN™ Sub M1	ExoMAIN™ Sub M2	ExoMAIN™ Sub M3	ExoMAIN™ Sub M4 (In preparation)
REF (Cat. No.)	SOL-5112	SOL-5113	SOL-5114	SOL-5115
Target subpopulation	CD9+	CD63+	CD81+	CD151+

Advantages of using ExoMAIN™

<p>High sensitivity analysis for exosome subpopulations</p>	<p>Subdivided immuno-analysis using exosome subpopulation samples</p>	<p>Extended applications by combination among our products</p>
<p>Improved analysis performance compared to other companies' products by providing optimal immuno-analysis conditions for pan-exosome tetraspanins (CD9, CD63, & CD81)</p>	<p>When adopting an exosome subpopulation sample prepared using NeutraRelease™, it is possible to analyze the exosome sub-subpopulation or its subclass exosome</p>	<p>When combined with exosome isolation kits and analysis reagents provided by SOL Bio, studies such as determination of the composition rates among exosome markers can be carried out in general lab environment</p>

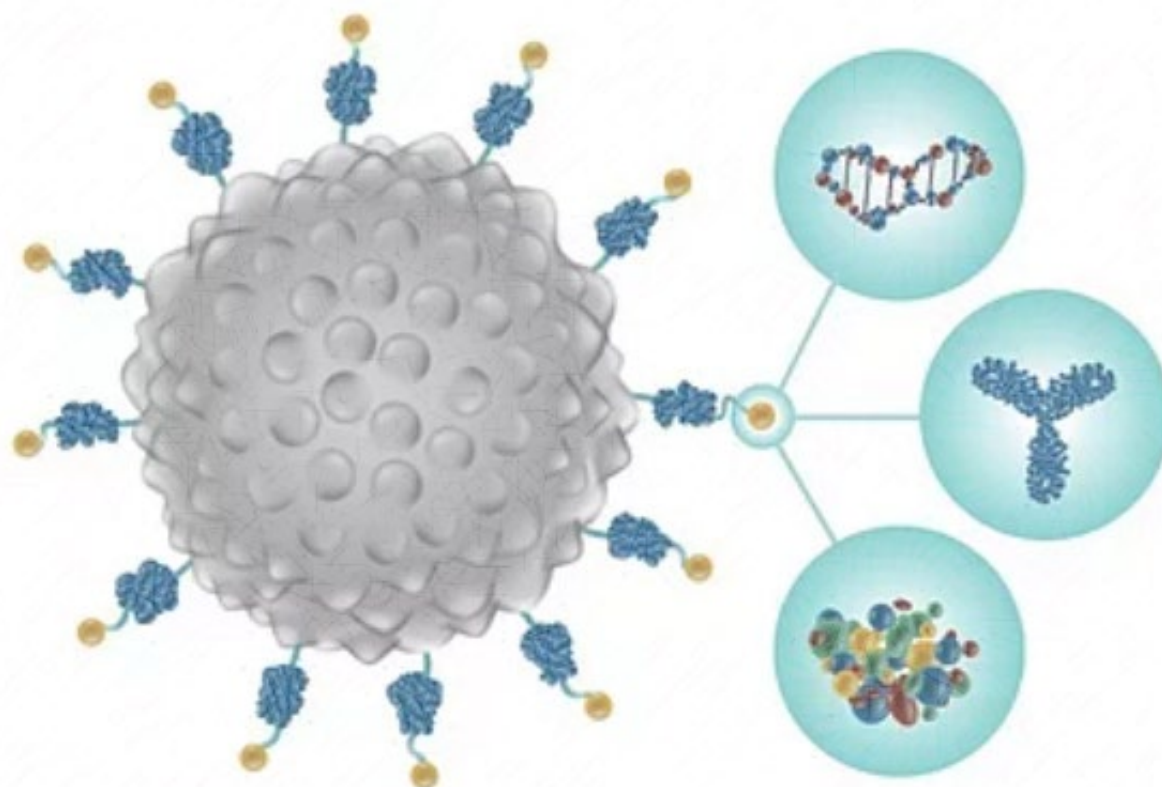
For your information, if you want to analyze biomarkers of interest to the researcher in addition to the markers specified in the kit, please contact us about the customized service.

ExoMAIN™ Application Scalability

An Exclusive or Combinatorial Application of ExoMAIN™ ELISA kits with the Relevant Products provided by SOL Bio Corporation

- Definitions**
- Exosome subpopulation: [Single marker-positive exosome]
 - Exosome sub-subpopulation: [Double markers-positive exosome]
 - Exosome sub-sub-subpopulation: [Triple markers-positive exosome]

Analysis Level (e.g., CD9)	Products used			Application	Assay Scheme for, for instance, CD9 as the primary target marker	Sample Type
	Isolation	Capture	Detection			
Analysis of exosome subpopulation 	-	ExoMAIN™ (e.g., Sub M1)		Qualitative & quantitative analysis of exosome subpopulation (CD9, CD63, or CD81)	Detection antibody: [Anti-CD9 Ab] Capture antibody: [Anti-CD9 Ab]	Bulk exosome sample
				Determination of the exosome unbinding rate by analyzing samples collected before and after immuno-isolation of exosome (CD9, CD63, or CD81)	Detection antibody: [Anti-CD9 Ab] Capture antibody: [Anti-CD9 Ab] ↳ The binding rate = 1 - [The unbinding rate determined by the assay]	Unbound exosome sample after immuno-isolation of exosome
Analysis of exosome sub-subpopulation 	-	ExoMAIN™ (e.g., Sub M1)	ExoDAb™	Analysis of exosome sub-subpopulation distribution within exosome subpopulation	Detection antibody: [Anti-CD63 Ab] Capture antibody: [Anti-CD9 Ab]	Bulk exosome sample
Analysis of exosome sub-sub-subpopulation 	Neutra Release™	ExoMAIN™ (e.g., Sub M1)	ExoDAb™	Analysis of exosome sub-sub-subpopulation distribution within exosome sub-subpopulation	Detection antibody: [Anti-CD63 Ab] Capture antibody: [Anti-CD9 Ab]	A recovered exosome sample after isolating with Neutra Release™ (e.g., CD63+ or CD81+ subpopulation sample)
				Analysis of exosome heterogeneity as a characteristic unique to the origin of sample		

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