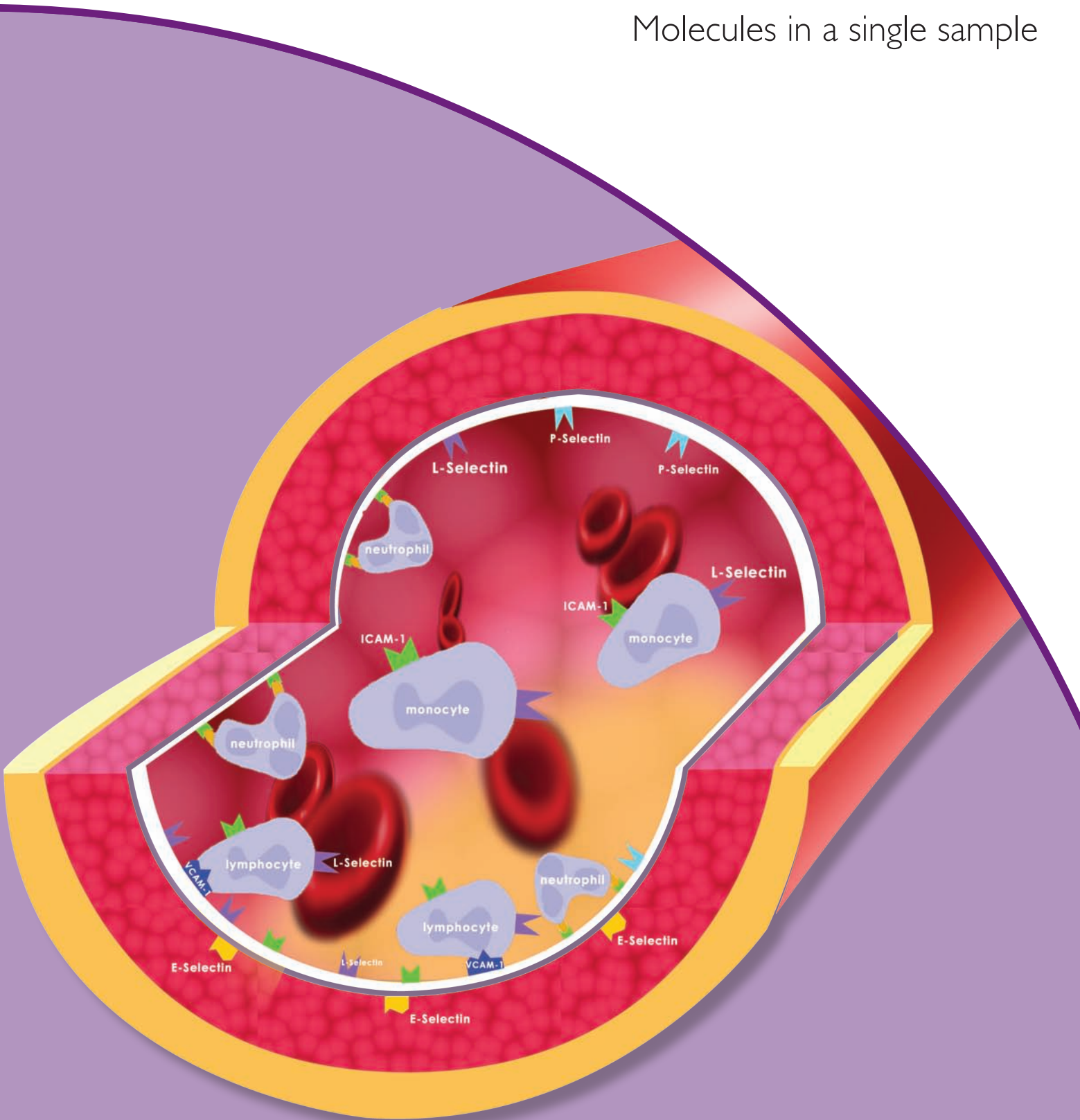


Adhesion Molecules Array

Determination of five soluble Adhesion Molecules in a single sample



Adhesion Molecules Array

Simultaneously and quantitatively detect five soluble adhesion molecules in a single patient sample



ADHESION MOLECULES ARRAY ANALYTES

- E-Selectin
- L-Selectin
- P-Selectin
- Intercellular Adhesion Molecule-1 (ICAM-1)
- Vascular Cell Adhesion Molecule-1 (VCAM-1)

ADHESION MOLECULES

Adhesion molecules are complex membrane proteins that have an important role in many cellular processes. They are grouped into four major families: the Selectins, the Immunoglobulins (Ig) superfamily, Integrins and Cadherins. Adhesion molecules are involved in a wide range of physiological processes and can be found in the cell membrane or as soluble forms in circulation.

KEY BENEFITS

- Multiple test results
- Suitable for human serum and plasma samples
- Small sample volume – measure all 5 analytes using just 2.5µl of neat sample per biochip (25µl of diluted sample)
- Applicable to fully automated and semi-automated Evidence analysers
- Excellent assay performance
- Quick time to results
- Biochips are ready-to-use

As well as the membrane forms, adhesion molecules can be shed from the cell surface and can be detected in the blood of normal healthy persons with the levels being altered in a number of pathological states. Altered levels of adhesion molecules are involved in conditions and diseases such as cardiovascular disease, stroke, cancer, diabetes and many more. Increased knowledge of these changes in the levels of the soluble adhesion molecules would help to progress the understanding of their physiological role and pathological significance. This would therefore lead to better diagnosis and disease management.

E-SELECTIN

E-Selectin is a member of the selectin family of adhesion molecules. E-Selectin is only expressed on endothelial cells and only after activation by inflammatory cytokines or endotoxin. Its expression is transitory and reaches a maximum two to six hours after cell activation. It is then shed into the circulation where it may activate neutrophils and acts as a pro-inflammatory agent.

L-SELECTIN

L-Selectin is also a member of the selectin family of adhesion molecules. Unlike the other members of the selectin family, L-Selectin is not expressed on endothelial cells but has only been found on leukocytes. There are two types of L-Selectin depending on the cell type. A number of different ligands for L-Selectin on endothelial cells have been identified.



P-SELECTIN

P-Selectin is a member of the selectin family of adhesion molecules. After expression on the cell surface, P-Selectin is rapidly internalised and recycled or degraded within the cell. Stimulation by inflammatory mediators are also able to activate transcription of P-Selectin mRNA.

INTERCELLULAR ADHESION MOLECULE-1 (ICAM-1)

ICAM-1 is a member of the Immunoglobulin (Ig) superfamily of adhesion molecules. ICAM-1 plays an important role in inflammatory processes and in the T-cell mediated host defence system. The membrane bound ICAM-1 is proteolytically cleaved and soluble ICAM-1 can be detected in serum from healthy persons.

VASCULAR CELL ADHESION MOLECULE-1 (VCAM-1)

VCAM-1 is also a member of the Immunoglobulin (Ig) superfamily of adhesion molecules. VCAM-1 is a glycoprotein with seven Ig-like extracellular domains. As well as being expressed on endothelial cells, VCAM-1 is expressed on smooth muscle cells, fibroblasts, activates neurons, dendritic cells and macrophages. Soluble VCAM-1 can be detected in serum from healthy individuals.

ADHESION MOLECULES ARRAY PERFORMANCE ON EVIDENCE INVESTIGATOR™

Analyte	Intra-Assay Precision (n=20)			Inter-Assay Precision (n=20)		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
E-Selectin	7.0	7.4	5.2	7.5	8.0	8.6
L-Selectin	6.2	6.1	9.1	8.7	7.7	13.4
P-Selectin	6.5	6.1	9.6	5.7	4.8	7.2
ICAM-1	6.4	8.4	9.4	3.5	7.9	8.3
VCAM-1	7.7	8.1	9.2	5.9	9.6	7.5

07/627/272, 05/414/272

Analyte	Calibration/Range (a) ng/ml	Sensitivity(b) ng/ml (neat sample)
E-Selectin	0-25	0.1
L-Selectin	0-350	3.2
P-Selectin	0-120	1.9
ICAM-1	0-100	1.7
VCAM-1	0-330	4.1

05/396/272

^(a) Calibration range may vary slightly with batch of calibrators

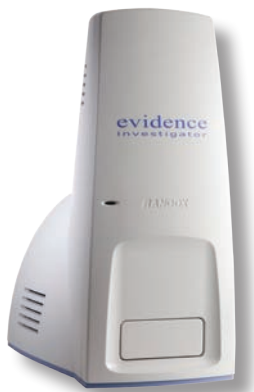
^(b) Sensitivity defined as the concentration at two standard deviations from zero (multiplied by 10 to account for sample dilution)

BIOCHIP SYSTEMS



— evidence — EVOLUTION

- Large laboratories • High throughput
- Random access, fully automated • Clinical/research testing



— evidence — INVESTIGATOR

- Medium size laboratories • Medium throughput
- Semi-automated • Clinical/research testing

Adhesion Molecules Array

EV3519



evidence

- Large laboratories • High throughput
- Fully automated • Clinical/research testing

Adhesion Molecules Array EV3530 (360 Biochips)
EV3572 (180 Biochips)

Adhesion Molecules Controls EV3569
Adhesion Molecules Calibrators EV3568

The Adhesion Molecules Array is for research purposes only.

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