

# DIY Elisa Kit H1, Detection kit of circulating endocan / ESM-1, the biomarker of endothelial cell activation in severe sepsis

**The DIY Elisa Kit (LIK-1101) is today a unique method to measure the endothelial dysfunction in severe sepsis**



From 100 µL of serum or plasma, one may be able to:

- evaluate endothelial cell activation / inflammation / dysfunction in severe sepsis
- follow endothelial cell activation / inflammation / dysfunction in preclinical and clinical studies
- evaluate endothelial cell response activation in presence of pharmacological compounds

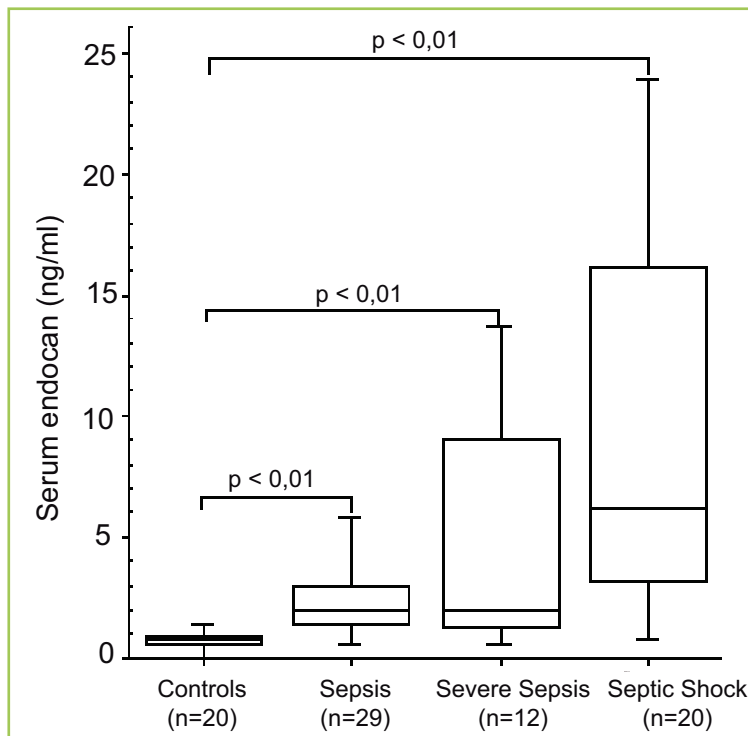
## ● Background : Endocan as a biomarker in severe sepsis and respiratory failure

Endocan also called endothelial cell specific molecule 1 (ESM-1), is a unique biomarker of activated endothelium (1,2,3). The secretion of endocan / ESM-1 by endothelial cells has been shown to be upregulated in presence of pro-angiogenic molecules such as VEGF, in presence of pro-inflammatory molecules such as TNF alpha, IL-1 beta or in presence of LPS (2,4).

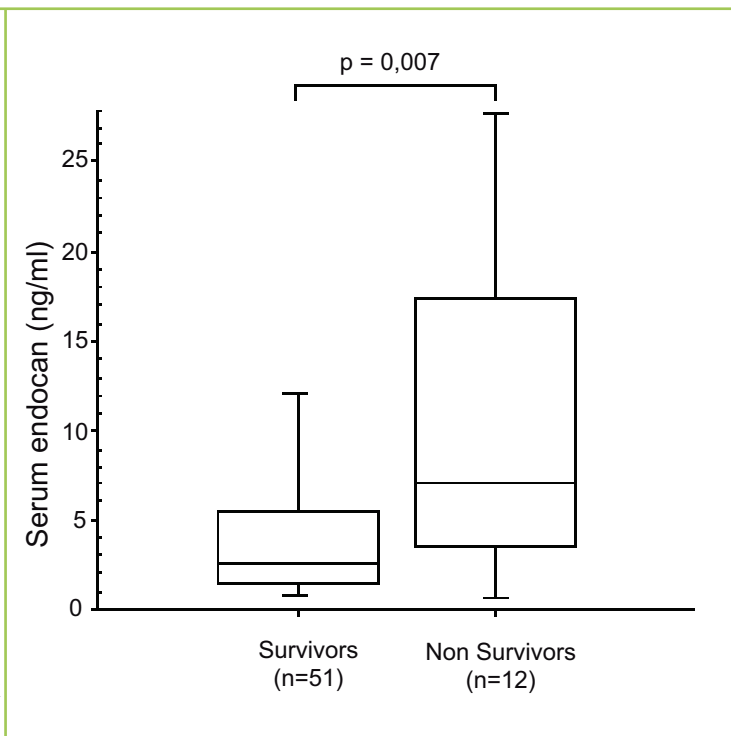
The expression of endocan / ESM-1 appeared as a **pertinent biomarker** of poor prognosis in severe sepsis (5). Blood levels of endocan / ESM-1 are increased in patients suffering from severe sepsis and was shown to be associated with the severity and fatal outcome of septic states (4,5,6,7). Recently, endocan was found to be a biomarker of respiratory failure during sepsis and associated with the development of acute lung injury (6,7).

With **DIY Elisa Kit H1 (LIK-1101)**, samples of serum and / or plasma can be analyzed in all laboratories with standard equipment for ELISA assays.

## ● Endocan / ESM-1 in severe sepsis



**Figure 1 :** The highest rates of endocan / ESM-1 are measured in patients with severe sepsis and / or in septic shock (Ref. 5)



**Figure 2 :** High level of circulating endocan / ESM-1 is associated with poor prognosis in septic patients (Ref. 5)

## ● DIY Elisa Kit H1 (LIK-1101) description

- Quantify human endocan in serum and / or plasma
- Highly reproducible method
- Using affinity-purified monoclonal antibodies
- Can be stored at 4°C
- All incubations performed at room temperature
- Requires only standard ELISA equipment

## ● References

1. Lassalle et al. 1996, J. Biol. Chem. 271 : 204
2. Bechard et al. 2001, J. Biol. Chem. 276 : 48341
3. Sarrazin et al. 2006, Biochim. Biophys. Acta Rev. 1765 : 25
4. Bechard et al. 2000, J. Vasc. Res. 37 : 417
5. Scherpereel et al. 2006, Crit. Care Med. 34 : 532
6. Parmentier et al. 2010, Crit. Care 14 : 55
7. Mikkelsen et al. 2011, J. Crit. Care In Press

## Main features of DIYEK H1 (LIK-1101)

<b>Catalogue No.</b>	LIK-1101
<b>Specificity</b>	Human and monkey endocan / ESM-1
<b>Analytical range</b>	0.4 to 10 ng/mL
<b>Sensitivity</b>	0.2 ng/mL
<b>Sample type</b>	Sera, plasma, vitreous, ascites liquid, cell cultures
<b>Sample volume</b>	100 µL

This product is for research use only and is not intended for diagnostic or therapeutic use