

## JDI ELISA Kit H1 (JDIEK H1)

# ELISA Kit to detect and quantify human endocan / ESM-1 in biological fluids

The **JDIEK H1 (Just Do It ELISA Kit - LIK-1205)** is an immunoassay that allows you to:

- Quantify human endocan as a secreted molecule in cell culture supernatants or in body fluids.
- Evaluate endothelium activation during inflammatory events.
- Evaluate endothelium activation during neoangiogenesis.
- Evaluate endothelium activation in presence of pharmacological compounds.

### ● Background : endocan / ESM-1 as a biomarker of endothelium activation

Endocan also called endothelial cell specific molecule 1 (ESM-1), is a circulating **proteoglycan** (secreted molecule) in endothelial cells (1,2,3). *In vitro*, endocan / ESM-1 is upregulated in presence of pro-angiogenic molecules such as VEGF (4,5,6,7), in presence of pro-inflammatory molecules such as TNF  $\alpha$  or in presence of LPS (1,8,9). Moreover, endocan / ESM-1 was shown to bind to LFA-1 and to inhibit transendothelial migration of leucocytes during inflammation (6,8).

Blood levels of endocan / ESM-1 are increased in patients suffering from lung cancer, kidney cancer, liver cancer (5,6,7), acute myeloid leukemia and in patients suffering from sepsis (9,10). Recently, endocan has been described as a **biomarker** of tip cells during neoangiogenesis process (6) and *in vitro*, the VEGF-induced endocan secretion was shown to completely abolish in presence of anti-angiogenic drugs (5,7).

Clearly, endocan / ESM-1 appeared today as a pertinent **biomarker** of endothelial dysfunction in cancers and in diseases when endothelium gets challenged (9,11).

## ● JDI ELISA kit H1 (LIK-1205) description

The human endocan / ESM-1 **JDIEK H1 «Just Do It ELISA kit H1» (JDIEK H1)** contains all the components required for the detection and the quantification of human Endocan / ESM-1 in cell culture supernatants, serum or plasma.

- Reagents provided:

- One Microplate pre-coated with the Capture Antibody
- Two Vials of Lyophilized Human Endocan Standard
- One vial of Detection Antibody
- One bottle of the Enzyme reagent
- One bottle of 20X ELISA Buffer
- One bottle of the Substrate Solution
- One bottle of the Acid Stop solution
- Three ELISA plate sealers

- All reagents should be stored at 4°C

- Easy to use immunoassay / highly reproducible results in 2 hours

- Requires only standard ELISA equipment

### Main features of JDIEK H1 (LIK-1205)

<b>Catalogue No.</b>	LIK-1205
<b>Specificity</b>	Human and monkey endocan / ESM-1
<b>Analytical range</b>	0.3 to 10 ng/mL
<b>Sensitivity</b>	0.3 ng/mL
<b>Sample type</b>	Sera, plasma, vitreous, ascites liquid, cell cultures
<b>Sample volume</b>	100 µL
<b>Format</b>	96 wells (to analyse up to 40 samples in duplicate)

## ● References

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