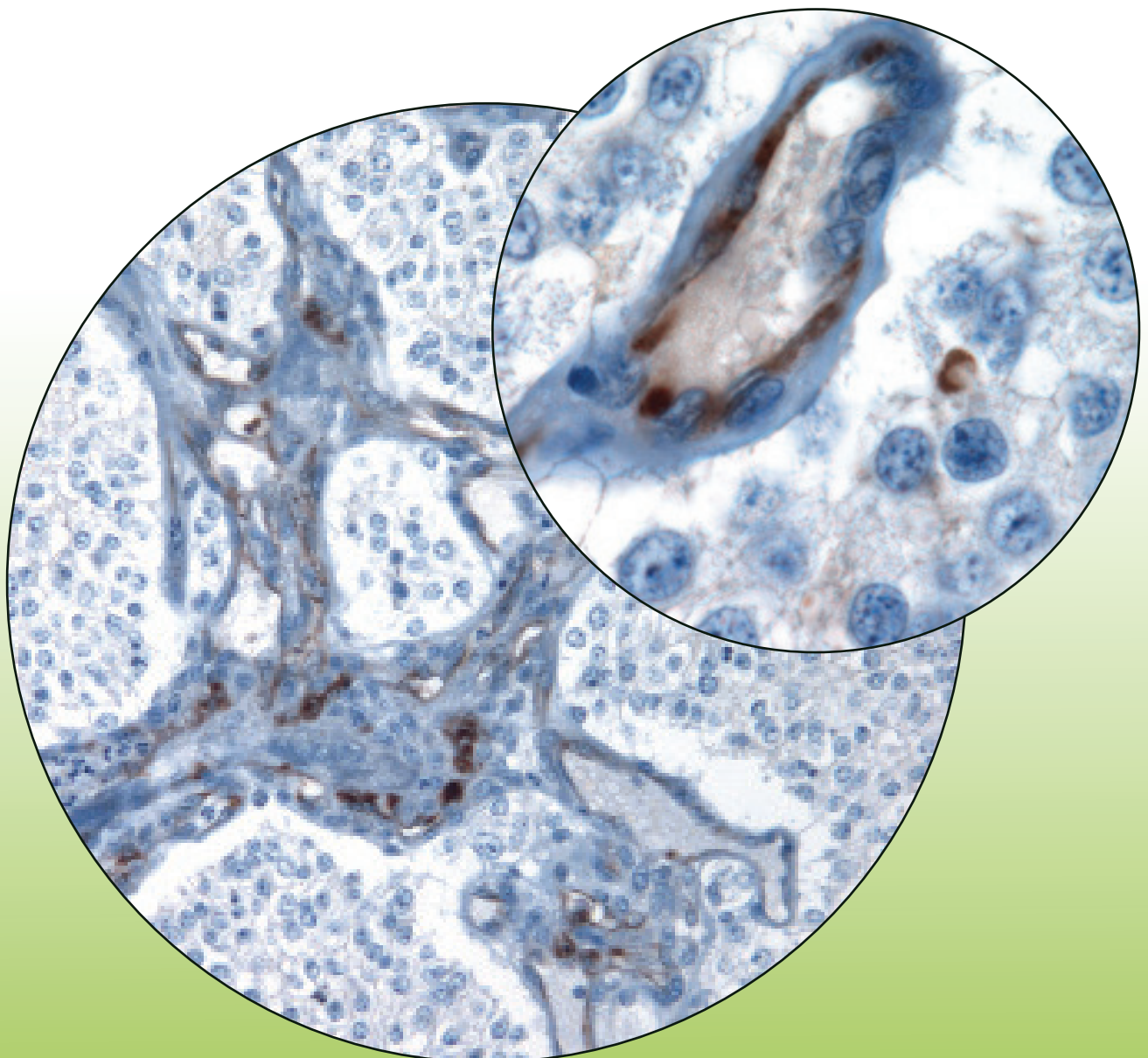


Endocan / ESM-1

Biomarker of activated endothelium
in glioblastoma

Monoclonal antibody MEP08

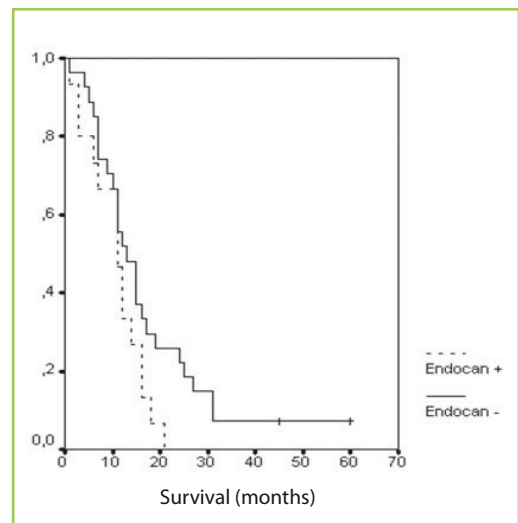


The monoclonal antibody against human endocan / ESM-1 called MEP08¹ (LIA-0901) is a pertinent biomarker to evaluate endothelial activation and neoangiogenesis in glioblastoma

Background

Endocan also called endothelial cell specific molecule 1 (ESM-1) is a pertinent biomarker of **endothelial dysfunction** (Sarrazin et al. 2010). In vitro, endocan / ESM-1 is upregulated in presence of pro-angiogenic molecules such as VEGF (Sarrazin et al. 2010). Recently, endocan was shown to be overexpressed in **tip cells** during **neoangiogenesis** (Strasser et al. 2010 ; Recchia et al. 2010). Interestingly, VEGF-induced endocan secretion was shown to be fully abolished in presence of anti-angiogenic drugs (Grigoriu et al. 2006 ; Leroy et al. 2010).

In high-grade glioma also called glioblastoma (GBM), endocan immunoreactivity is always detected in endothelial cells within the tumor and those at the margins of the tumors (Maurage et al. 2009). In contrast, endothelial cells are mostly all endocan immunonegative in low-grade glioma (grade I and grade II). Endocan expression is associated with higher grade glioma and with the abnormal vasculature reflecting neoangiogenesis process in glioblastoma (Maurage et al. 2009).



The GBM patient group without endocan expression in endothelial cells at the leading edge of the tumor had a longer survival than GBM patients with endocan endothelial cell immunoreactivity (according Maurage et al. 2009).

References

- Grigoriu et al. (2006) Clin. Cancer Res. 12:4575-4582
- Leroy et al. (2010) Histopathology 56:180-187
- Maurage et al. (2009) J. Neuropathol. Exp. Neurol. 68:633-641
- Recchia et al. (2010) Invest. Ophthalmol. Vis. Sci. 2:1098-1105
- Sarrazin et al. (2010) J. Cancer. Sci. Ther. 2:47-52
- Strasser et al. (2010) Blood 115:5102-5110

Main features

- Monoclonal antibody (mouse)
- Recommended for immunohistochemistry (paraffin and frozen sections)
- Specific of the N-terminus of human endocan
- Easy to use / do not required any enzymatic pre-treatment
- Can be use with automatized procedures
- Stored at 4°C / -20°C

¹ This product is for research use only and is not intended for diagnostic or therapeutic use

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