Anti-human Endocan/ESM-1 monoclonal antibody

Clone MEP14 (C-Terminal)

Essential Notes

Cat. Number : LIA-1001

Clone : MEP14

Concentration : 1 mg/mL

Size : 100 µg

Formulation : PBS pH 7.4

Storage : 4°C / -20°C

Immunogen : *E. coli* derived C-Ter peptide (60-165)

Specificity : human, monkey, rat, pig and mouse endocan

Source : mouse

Ig isotype : IgG2a, K

Applications : WB, ELISA, IHC

FOR RESEARCH USE ONLY

Preparation/Source

Endocan/ESM-1 is a 165 amino acide peptide that carries a dermatan sulfate chain. Anti-endocan/ESM-1 antibodies clone MEP14 were produced from a hybridoma resulting from the fusion of mouse myeloma Sp2/0 cells with B cells obtained from mouse immunized with a *E. coli* derived C-terminal peptide (60-165) from recombinant human endocan. They were purified by protein A affinity chromatography.

Formulation

Solution in phosphate buffer saline 1x, pH 7.4

Concentration

The concentration of MEP14 was 1 mg/mL as determined by measurement of protein.

Purity

Purity > 90%, as determined by SDS-PAGE and as visualized by silver staining.

Specificity

Specificity is determined by ability to recognize **human, monkey, rat, pig and mouse endocan**.

Storage

Antibody can be stored at 2°C - 8°C for 6 months without loss of activity. They can be easily aliquoted and stored frozen from -20°C to -80°C for long term storage. Avoid repeated freeze-thaw cycles.

Applications

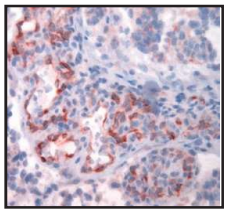
Western blot (WB) : The anti-human endocan/ESM-1 antibody clone MEP14 is recommended to detect human endocan after electrophoresis and immunoblotting. Recommended working dilutions were determined to be 1 µg/mL. Optimal dilutions should be determined according sample origins.

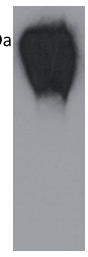
ELISA : The MEP14 monoclonal antibody can be used in sandwich ELISA procedures as a capture antibody (see references below for details).

Immunohistochemistry (IHC) : Recommended working dilutions with anti-human endocan antibody clone MEP14 were determined to be 5 µg/mL. Optimal dilutions should be determined according to tissue origins

Other : to be determined.

Tumor vessels expressing endocan (brown) in glioblastoma as detected by IHC using the MEP14 antibody





Immunodetection of the 50 kDa recombinant human endocan using the MEP14 monoclonal antibody, in reduced condition.

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Last Updated Version: Rev 01 – January 2021

Bibliography related to Endocan

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Background

Endocan, also known as endothelial cell-specific molecule (ESM-1), was originally discovered by Lassalle and collaborators in endothelial cells. Structurally, endocan is a dermatan sulfate proteoglycan of 50 kDa that is freely circulating in blood. Endocan binds CD11a/CD18 integrin (also called LFA-1 for Leukocyte Function-associated Antigen-1) on human leukocytes inhibiting consequently its binding to ICAM-1 and transendothelial migration. Moreover, endocan has been recently described as a biomarker of tip cells and neoangiogenesis. The expression of endocan is upregulated by pro-inflammatory molecules such as tumor necrosis factor alpha, and pro-angiogenic molecules such as vascular endothelial growth factor and fibroblast growth factor 2. Endocan binds via its dermatan sulfate chain to hepatocyte growth factor/ scatter factor. Endocan appears as a pertinent biomarker of endothelial dysfunction.

Companion products

- Anti-human endocan/ESM-1 mAb (N-ter) ; clone MEP08 : **LIA-0901**
- Anti-human endocan/ESM-1 mAb (N-ter) ; clone MEP19 : **LIA-1003**
- Anti-human endocan/ESM-1 mAb (N-ter) ; clone MEP21 : **LIA-0902**
- Human recombinant endocan/ESM-1 (50 kDa) : **LIP-1001**
- DIYEK H1 (Do It Yourself Elisa Kit for Human Endocan quantification) : **LIK-1101**
- JDIEK H1 (Just Do It Elisa Kit for Human Endocan quantification) : **LIK-1201**

Not intended for use as a therapeutic agents or in diagnostic procedures. Not for use in humans or animals.

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