



### Anti-human VE-Statin/EGFL7

20150507BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

|                    |                            |
|--------------------|----------------------------|
| <b>Cat.-no.:</b>   | <b>102-PA14</b>            |
| Size:              | 200 µg                     |
| Lot. No.:          | According to product label |
| Country of origin: | Germany                    |

**Preparation:** Produced from sera of rabbits immunized with highly pure (>95%) recombinant human EGFL7 (Thr20-Ser273) derived from insect cells.

### Target Background

|                  |  |
|------------------|--|
| <b>Synonyms:</b> | Epidermal growth factor-like protein 7, VE-Statin, Notch4-like protein |
|------------------|--|

EGFL7 (epidermal growth factor-like domain 7) is a secreted angiogenic factor that is highly conserved in vertebrates. Most secreted angiogenic signaling molecules, including VEGF and FGF-2, are mainly expressed by non-endothelial cell types such as fibroblasts. In contrast, EGFL7 is unique because it is almost exclusively expressed by and acts on endothelial cells. EGFL7 expression is highest when the endothelium is in an active, proliferating state. This factor acts as a chemo-attractant for endothelial cells and binds to components of the extracellular matrix. EGFL7 is important for the regulation of tubulogenesis in Zebrafish and for controlling vascular patterning and integrity in mice in vivo. Its function in blood vessel development is mediated, at least in part, through modulation of Notch signaling. There is evidence that support a role for EGFL7 in developmental and postnatal angiogenesis as well as a potential role for EGFL7 in vascular repair. EGFL7, also known as VE-Statin (Vascular endothelial Statin), is an endothelial-specific protein that is a marker for progenitor, embryonic and adult endothelial cells. Mature soluble EGFL7/VE-Statin is a 41 kDa protein containing an N-terminal cysteine rich EMI domain, followed by two EGF-like domains and a coiled-coil region. EGFL7/VE-Statin inhibits PDGF-BB-induced smooth muscle cell migration. The amino acid sequence of human EGFL7/VE-Statin is 80% identical to that of mouse EGFL7/VE-Statin.

### References

- Schmidt MH et al, Nat Cell Biol 11:873, 2009
- Nikolic et al, Blood 121:3041, 2013
- Schmidt MH et al, Development 134: 2913-2923 (2007)
- Socin F et al, EMBO Journal 22: 5700±5711 (2003)
- Picuric S et al, Protein Expression and Purification 68: 1-6 (2009)
- Caetano B et al, Protein Expression and Purification 46: 136-142 (2006)
- Nichol D & Stuhlmann H, Blood 119:1345-1352 (2012)

### Database References Antigen

|                        |             |
|------------------------|-------------|
| <b>Protein RefSeq:</b> | NP_057299.1 |
| <b>Uniprot ID:</b>     | Q9UHF1      |
| <b>mRNA RefSeq:</b>    | NM_016215.4 |

### Product Specifications

|                           |  |
|---------------------------|--|
| <b>Species reactivity</b> | human                                  |
| <b>Clone/Ab feature</b>   | Rabbit IgG                             |
| <b>Cross reactivity</b>   | ND                                     |
| <b>Host</b>               | rabbit                                 |
| <b>Clonality</b>          | polyclonal                             |
| <b>Purification</b>       | Protein A purified                     |
| <b>Immunogen</b>          | Recombinant human EGFL7 (Thr20-Ser273) |
| <b>Formulation</b>        | lyophilized                            |
| <b>Buffer</b>             | PBS                                    |

**Stability:** The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

|                      |                   |
|----------------------|-------------------|
| <b>Western Blot:</b> | Use 2-5 µg/ml     |
| <b>IF/IHC:</b>       | ICC: Use 10 µg/ml |
| <b>IF/IHC:</b>       | IHC: Use 10 µg/ml |

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**



# Anti-human VE-Statin/EGFL7

## Handling/Applications

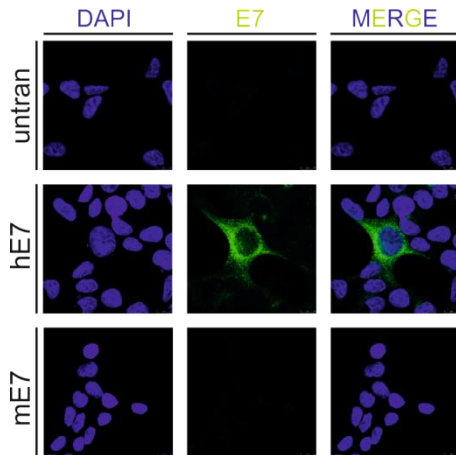


Figure 1: Immunohistochemical staining (ICC) of human and mouse EGFL7.

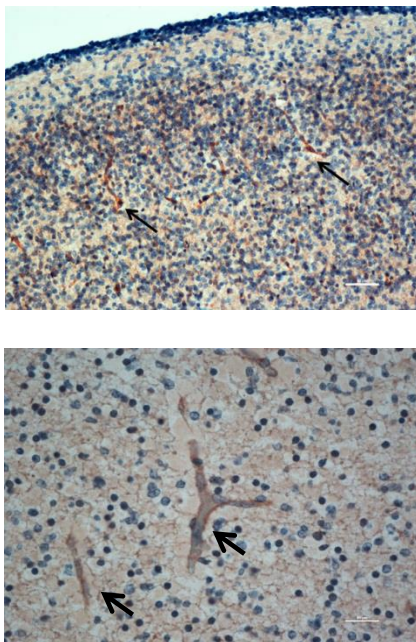


Figure 2: Immunohistochemical staining (IHC) of blood vessel endothelial cells in the human fetal brain by anti-human EGFL7.

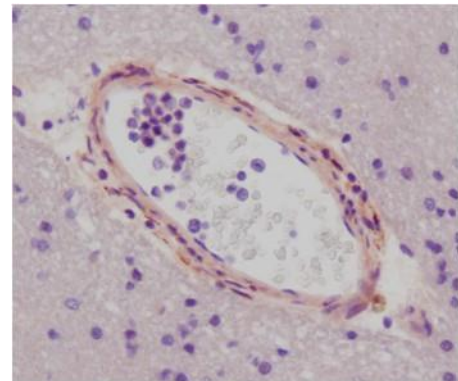


Figure 3: Immunohistochemical staining (IHC) of blood vessel endothelial cells in the white matter in human brain by anti-human EGFL7.

Experiments were performed by N. Dudvarski Stankovic and other members of the research group „Molecular Signal Transduction“ of Prof. Dr. Mirko HH Schmidt, Institute of Microscopic Anatomy and Neurobiology, University Medical Center of Johannes Gutenberg University Mainz, Germany.

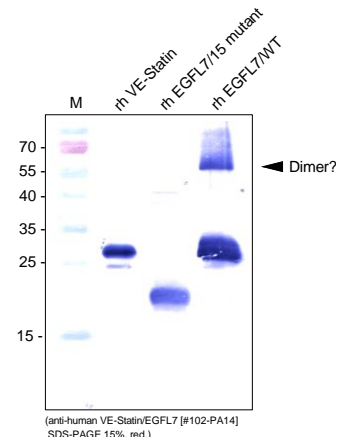


Figure 4: Western analysis of recombinant human VE-Statin, EGFL7/W15 mutant and EGFL7/WT using a polyclonal antibody directed against recombinant human EGFL7/WT produced in E. coli.