Anti-human VE-Statin/EGFL7

20150507BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA16**
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 (Pro187-Ser273; C terminus) derived from E. coli.

Target Background

Synonyms:	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 a 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

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

Database References Antigen

Protein RefSeq:	NP_057299.1
Uniprot ID:	Q9UHF1
mRNA RefSeq:	NM_016215.4

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human EGFL7 (C terminus)
Formulation	lyophilized
Buffer	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

Western Blot:	Use 2-5 µg/ml
IF/IHC:	ICC: Use 10 µg/ml
Others	IP: Use 1 µg/ml

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

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Handling/Applications

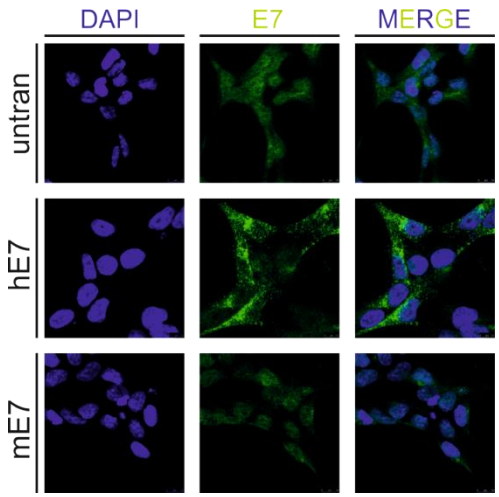

Figure 1: Immunohistochemical staining (ICC) of human or mouse EGFL7 constructs overexpressed in HEK293T cells.

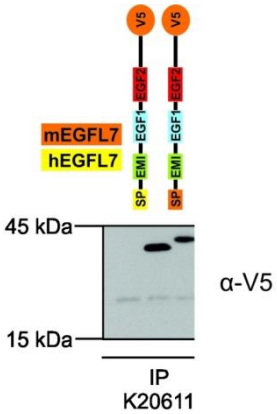

Figure 2. Immunoprecipitation of human and mouse EGFL7 constructs with anti-human EGFL7 (C terminus) and subsequent Western analysis with anti-V5 antibodies. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions.

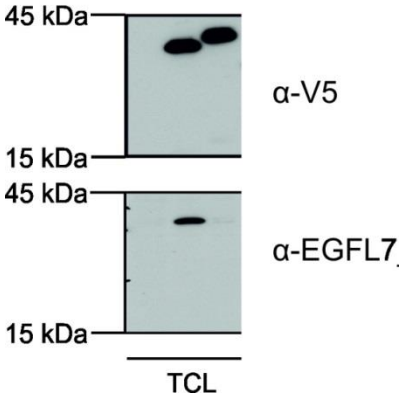

Figure 3. Western Analysis with human and mouse EGFL7 constructs (see Fig. 2) using an anti-human EGFL7 antibody. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions. There is no cross reactivity with the mouse EGFL7.

Experiments were performed by N. Dudvarski Stankovic from 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.