



Anti-Human AGGF1

20180528BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-PA13S
Size:	100 µg
Lot. No.:	According to product label

Preparation: Produced from sera of rabbits immunized with highly pure recombinant human AGGF1 fragment produced in E. coli. The recombinant AGGF1 fragment consists of amino acid 421 (Gln) to 520 (Ser) and is fused to a C-terminal His-tag (6xHis).

Target Background

Synonyms (Target):	Angiogenic factor VG5Q, hVG5Q, G patch domain-containing protein 7, Vasculogenesis gene on 5q protein
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AGGF1, also known as VG5Q, was identified by its association with Klippel Trenaunay syndrome (KTS), a congenital vascular morphogenesis disorder (1,3). AGGF1 is expressed by vascular endothelial cells in many tissues (1). It appears to be secreted and promotes endothelial cell proliferation following interactions with endothelial cell surfaces (1). AGGF1 also directly interacts with TWEAK (1), a TNF superfamily ligand with angiogenic properties (8). It was shown that AGGF1 is involved in establishing venous identity in zebrafish embryos. Overexpression of AGGF1 led to increased angiogenesis and increased lumen diameter of veins, whereas knockdown of AGGF1 expression resulted in defective vasculogenesis and angiogenesis. Overexpression of AGGF1 increased expression of venous markers (e.g. VEGFR-3/FLT4), but had little effect on arterial markers (e.g. Notch5). Knockdown of AGGF1 expression resulted in a loss of venous identity (loss of expression of VEGFR-3/FLT4, Ephb4 and Dab2), but had no effect on the expression of arterial development. It was further shown that AGGF1 activates AKT, and that decreased AGGF1 expression inhibits AKT activation. Overexpression of constitutively active AKT rescues the loss of venous identity caused by AGGF1 downregulation. These results indicate that AGGF might be an angiogenic factor with an important role in the specification of vein identity and suggests that AGGF1-mediated AKT signaling is responsible for establishing venous cell fate.

Database References Target

Protein RefSeq:	NP_060516.2.
Uniprot ID:	Q8N302
mRNA RefSeq:	NM_018046.4.

Product Specifications

Host	Rabbit
Reactivity against	Human
Clonality	Polyclonal Antibody
Clone	Rabbit IgG
Purification	Protein A purified
Antigen	recombinant human AGGF1 (fragment)
Formulation	lyophilized
Reconstitution buffer	water

Reconstitution: Reconstitute in sterile water to a concentration of 0.1-1.0mg/mL.

Stability: The lyophilized antibody is stable for at least 2 years from date of receipt at -20°C. 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.

Remarks:



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

The antibody can be used within the following applications:

WB, IHC

Recommended usage:

WB: 1-5µg/ml

IHC: 1:50

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



Anti-Human AGGF1

Application/Handling

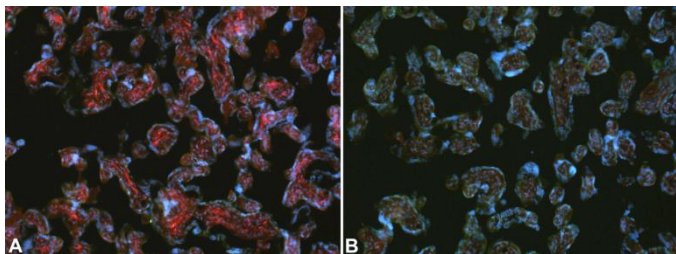


Fig. 1: Immunofluorescence staining of cryo-sections of human placental tissue (4% PFA overnight) with [A] rabbit AGGF1 (1:50) [Cat# 102-PA13] and [B] control without primary antibody. Counter staining of nuclei with Dapi (blue).

The experiment was performed by the research group of Prof. Dr. J. Wiling, University Göttingen, Germany.

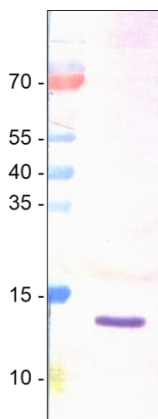


Fig. 2: Western analysis with a recombinant human AGGF1 fragment using a rabbit polyclonal anti-human AGGF1 [Cat# 102-PA13].