Anti-human CoupTF2/NR2F2

20191025BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA17S**
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Purified from sera of rabbits pre-immunized with highly pure (>95%) recombinant human CoupTF2 (Met1 – Pro190) derived from E. coli.

Target Background

Synonyms:	Apolipoprotein A-I regulatory protein 1, ARP-1, COUP transcription factor II, Nuclear receptor

Tumor growth depends on nutrients and oxygen supplied by the vasculature through angiogenesis. It was shown that the chicken ovalbumin upstream promoter-transcription factor II (COUP-TFII), a member of the nuclear receptor family, is a major angiogenesis regulator within the tumor microenvironment. COUP-TFs consist of two highly homologous subtypes, COUP-TFI (EAR-3, NR2F1) and COUP-TFII (ARP-1, NR2F2). Conditional ablation of COUP-TFII in the tumor microenvironment severely compromised neo-angiogenesis and lymphangiogenesis during pancreatic tumor progression and metastasis. It was shown that COUP-TFII plays a cell-autonomous role in endothelial cells to control blood vessel sprouting by regulating cell proliferation and migration. Mechanistic investigations revealed that COUP-TFII suppressed vascular endothelial growth factor receptor-2 (VEGFR-2/KDR) signaling by transcriptionally repressing the expression of VEGFR-1, thereby curtailing a central angiogenic driver of vascular growth. These results implicate COUP-TFII as a critical factor in tumor angiogenesis through regulation of VEGF/VEGFR-2 signaling, suggesting COUP-TFII as a candidate target for antiangiogenic therapy.

References

1. Kim W et al, Eur Respir J, pii: 1900329, 2019
2. Chu M et al, Elife, 5. pii: e21032, 2016
3. Xu M et al, Acta Pharmacol Sin, 36(1):32-6, 2015
4. Aranguren XL et al, J Cell Sci, 126(Pt 5):1164-75, 2013
5. Qin J et al, Nature, 493(7431):236-40, 2013
6. Lin F et al, J Clin Invest, 120(5):1694-707, 2010
7. Qin J et al, Proc Natl Acad Sci USA, 107(8):3687-92, 2010
8. Yamazaki T et al, Genes Cells, 14(3):425-34, 2009

Database References Antigen

Protein RefSeq:	NP_066285.1.
Uniprot ID:	P24468
mRNA RefSeq:	NM_021005.3.

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human CoupTF2 (RT #400-026)
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 1-5 µg/ml
IF/IHC:	Use 1-5 µg/ml

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

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Handling/Applications

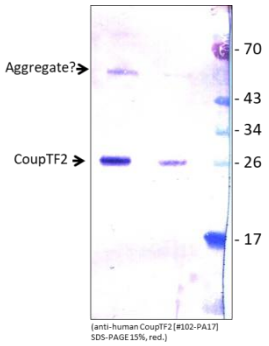

Fig. 1: Western Analysis of anti-human CoupTF2 (fragment). Samples were loaded in 15% SDS-PAGE under reducing conditions. As detection system an AP-conjugated secondary antibody was used.

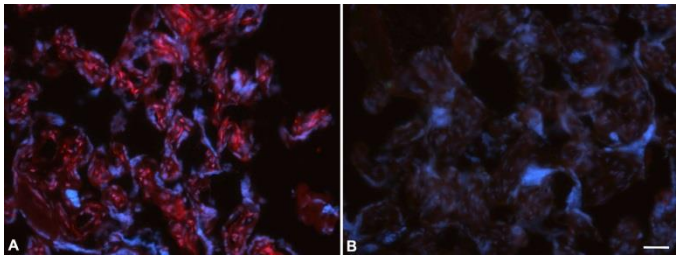

Fig. 2: Immunofluorescence staining of human placenta (fixed for 30 min in 4% PFA) with anti-human CoupTFII [Cat# 102-PA17]. **A**) Signal (red) in stromal cells of the placenta; **B**) Control without primary antibody shows no signal. Bar = 60µm

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