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# ANGPT2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10103b

## Product Information

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|---|---|
| **Application** | WB, IHC-P, FC, E |
| **Primary Accession** | O15123 |
| **Other Accession** | NP_001138.1 |
| **Reactivity** | Human, Mouse, Rat |
| **Predicted** | Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB17789 |
| **Calculated MW** | 56919 |
| **Antigen Region** | 404-432 |

## Additional Information

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| **Gene ID** | 285 |
| **Other Names** | Angiopoietin-2, ANG-2, ANGPT2 |
| **Target/Specificity** | This ANGPT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 404-432 amino acids from the C-terminal region of human ANGPT2. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | ANGPT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **Name** | ANGPT2 |
| **Function** | Binds to TEK/TIE2, competing for the ANGPT1 binding site, and modulating ANGPT1 signaling (PubMed:15284220, PubMed:19116766, PubMed:19223473, |

PubMed:9204896). Can induce tyrosine phosphorylation of TEK/TIE2 in the absence of ANGPT1 (PubMed:15284220, PubMed:19116766, PubMed:19223473, PubMed:9204896). In the absence of angiogenic inducers, such as VEGF, ANGPT2-mediated loosening of cell-matrix contacts may induce endothelial cell apoptosis with consequent vascular regression. In concert with VEGF, it may facilitate endothelial cell migration and proliferation, thus serving as a permissive angiogenic signal (PubMed:15284220, PubMed:19116766, PubMed:19223473, PubMed:9204896). Involved in the regulation of lymphangiogenesis (PubMed:32908006).

**Cellular Location** Secreted.

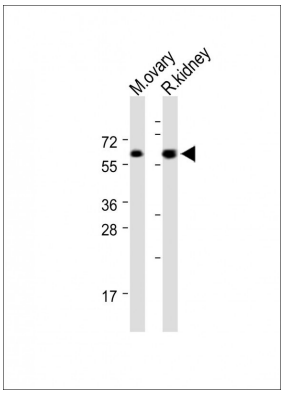
## Background

The protein encoded by this gene is an antagonist of angiopoietin 1 (ANGPT1) and endothelial TEK tyrosine kinase (TIE-2, TEK). The encoded protein disrupts the vascular remodeling ability of ANGPT1 and may induce endothelial cell apoptosis. Three transcript variants encoding three different isoforms have been found for this gene.

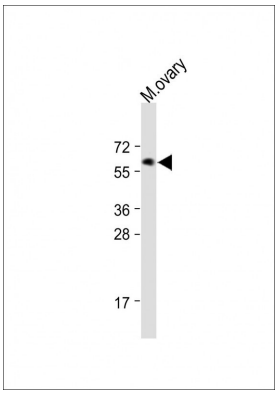
## References

Morrissey, C., et al. Prostate 70(16):1799-1808(2010) Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) : Bento, C.F., et al. Exp. Physiol. 95(9):955-970(2010) Vrbacky, F., et al. Hematology 15(4):210-214(2010) Chen, J., et al. Biochem. Biophys. Res. Commun. 398(2):212-216(2010)

## Images

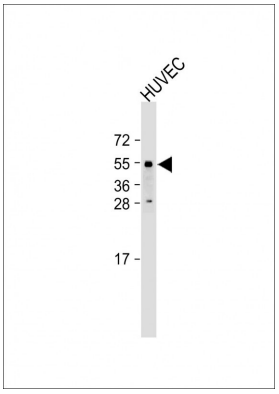



All lanes : Anti-ANGPT2 Antibody (C-term) at 1:500 dilution Lane 1: mouse ovary tissue lysate Lane 2: rat kidney tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 61kDa Blocking/Dilution buffer: 5% NFDM/TBST.

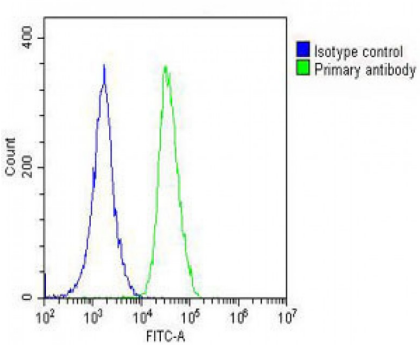



All lanes : Anti-ANGPT2 Antibody (C-term) at 1:500 dilution Lane 1: mouse ovary tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 61kDa Blocking/Dilution buffer: 5% NFDM/TBST.

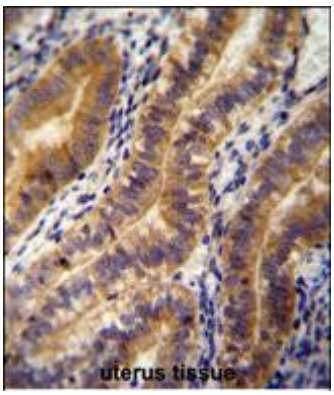
All lanes :ANGPT2 Antibody (C-term) at 1:500 dilution Lane 1: HUVEC whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/10000 dilution.



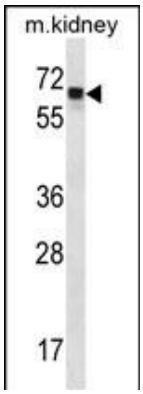

Observed band size :53kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Overlay histogram showing A549 cells stained with AP10103b (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP10103b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

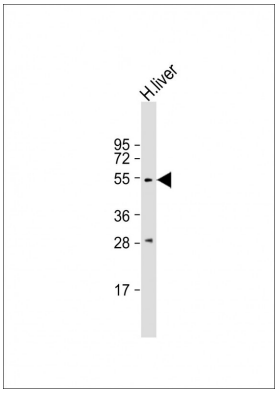


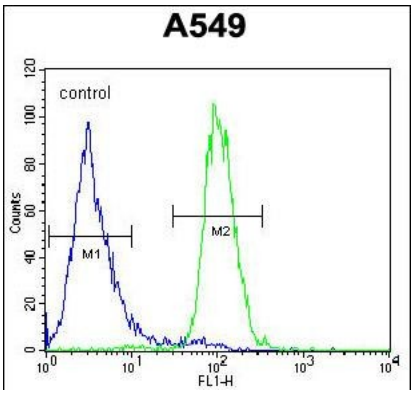

ANGPT2 antibody (C-term) (Cat. #AP10103b) immunohistochemistry analysis in formalin fixed and paraffin embedded human uterus tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of the ANGPT2 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



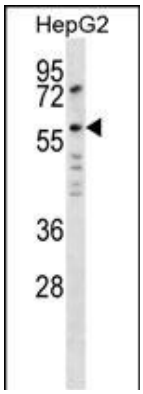

ANGPT2 Antibody (C-term) (Cat. #AP10103b) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the ANGPT2 antibody detected the ANGPT2 protein (arrow).

Anti-ANGPT2 Antibody (C-term) at 1:2000 dilution + human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




ANGPT2 Antibody (C-term) (Cat. #AP10103b) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.




ANGPT2 Antibody (C-term) (Cat. #AP10103b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the ANGPT2 antibody detected the ANGPT2 protein (arrow).

## Citations

- Subcutaneous preconditioning increases invasion and metastatic dissemination in mouse colorectal cancer models.
- Higher metastatic efficiency of KRas G12V than KRas G13D in a colorectal cancer model.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.