10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ANXA2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7420a

Product Information

Application	WB, IHC-P, E
Primary Accession	P07355
Other Accession	A6NMY6, Q07936, P19620, P04272
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Pig, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	38604
Antigen Region	19-49

Additional Information

Gene ID	302
Other Names	Annexin A2, Annexin II, Annexin-2, Calpactin I heavy chain, Calpactin-1 heavy chain, Chromobindin-8, Lipocortin II, Placental anticoagulant protein IV, PAP-IV, Protein I, p36, ANXA2, ANX2, ANX2L4, CAL1H, LPC2D
Target/Specificity	This ANXA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 19-49 amino acids from the N-terminal region of human ANXA2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	ANXA2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ANXA2
Synonyms	ANX2, ANX2L4, CAL1H, LPC2D

Function	Calcium-regulated membrane-binding protein whose affinity for calcium is greatly enhanced by anionic phospholipids. It binds two calcium ions with high affinity. May be involved in heat-stress response. Inhibits PCSK9-enhanced LDLR degradation, probably reduces PCSK9 protein levels via a translational mechanism but also competes with LDLR for binding with PCSK9 (PubMed:18799458, PubMed:22848640, PubMed:24808179). Binds to endosomes damaged by phagocytosis of particulate wear debris and participates in endosomal membrane stabilization, thereby limiting NLRP3 inflammasome activation (By similarity). Required for endothelial cell surface plasmin generation and may support fibrinolytic surveillance and neoangiogenesis (By similarity).
Cellular Location	Secreted, extracellular space, extracellular matrix, basement membrane. Melanosome. Note=In the lamina beneath the plasma membrane. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Translocated from the cytoplasm to the cell surface through a Golgi-independent mechanism

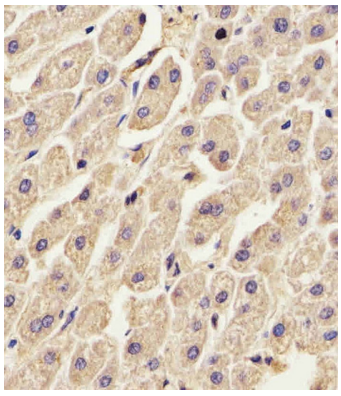
Background

ANXA2 is a member of the annexin family. Members of this calcium-dependent phospholipid-binding protein family play a role in the regulation of cellular growth and in signal transduction pathways. This protein functions as an autocrine factor which heightens osteoclast formation and bone resorption.

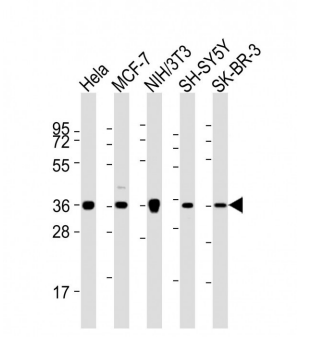
References

He,K.L., J. Biol. Chem. 283 (28), 19192-19200 (2008) Tamma,G., Pflugers Arch. 456 (4), 729-736 (2008) Gou,D., J. Biol. Chem. 283 (19), 13156-13164 (2008)

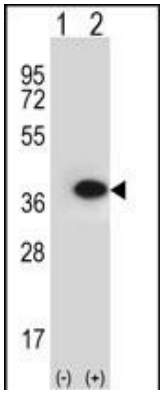
Images



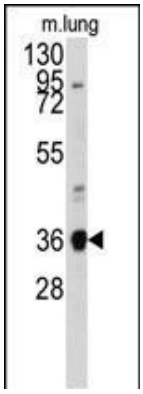
AP7420a staining ANXA2 in Human liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



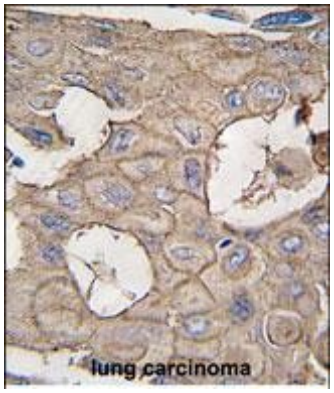
All lanes : Anti-ANXA2 Antibody (N-term) at 1:2000 dilution Lane 1: Hela whole cell lysates Lane 2: MCF-7 whole cell lysates Lane 3: NIH/3T3 whole cell lysates Lane 4: SH-SY5Y whole cell lysates Lane 5: SK-BR-3 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 39 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



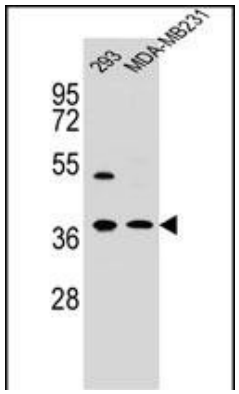
Western blot analysis of ANXA2 (arrow) using rabbit polyclonal ANXA2 Antibody (N-term) (Cat.#AP7420a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ANXA2 gene.



Western blot analysis of anti-ANXA2 Antibody (N-term) (Cat.#AP7420a) in mouse lung tissue lysates (35ug/lane). ANXA2(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with ANXA2 antibody (N-term) (Cat.#AP7420a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



ANXA2 Antibody (N-term) (Cat. #AP7420a) western blot analysis in 293,MDA-MB231 cell line lysates (35ug/lane).This demonstrates the ANXA2 antibody detected the ANXA2 protein (arrow).

Citations

- Plasmin plays an essential role in amplification of psoriasiform skin inflammation in mice.
- Plasmin induces intercellular adhesion molecule 1 expression in human endothelial cells via nuclear factor-κB/mitogen-activated protein kinases-dependent pathways.

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