abcam

ab201987

Anti-AACT antibody [5G3C11] - C-terminal

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human SERPINA3 aa 250 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P01011
Clone number	5G3C11
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Orangutan
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Predicted

Species	Orangutan
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/200 - 1/1000
Notes	-

Predicted

Species	Orangutan
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

Target data

See full target information SERPINA3

Function	Although its physiological function is unclear, it can inhibit neutrophil cathepsin G and mast cell chymase, both of which can convert angiotensin-1 to the active angiotensin-2.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The target protein Alpha-1-antichymotrypsin (AACT) also known as ACT is a serpin family member with a mass of approximately 68 kDa. This protein functions as an inhibitor of serine proteases particularly targeting chymotrypsin-like enzymes. AACT is expressed in the liver and secreted into the plasma where it carries out its inhibitory role. It is a significant component of the antiprotease shield in human physiology guarding tissues against proteolytic damage.
Biological function summary	Alpha-1-antichymotrypsin plays a role in regulating protease activity to maintain tissue integrity. AACT forms part of a complex that involves other protease inhibitors and enzymes contributing to the balance of protein breakdown and regeneration. Its presence in the extracellular matrix highlights its structural and protective functions supporting cells against enzyme-mediated degradation.
Pathways	Alpha-1-antichymotrypsin takes part in inflammatory and immune response pathways. It interacts within the acute phase response pathway a system activated during inflammatory events. This protein's relationship with other protease inhibitors such as alpha-1-antitrypsin accentuates its role in controlling proteolytic enzymes that could otherwise propagate unchecked inflammation and tissue damage.
Associated diseases and disorders	Alpha-1-antichymotrypsin associates with neurodegenerative diseases such as Alzheimer's disease and pulmonary disorders. Its elevated levels have been observed in Alzheimer's disease cases where it might participate alongside amyloid-beta precursor protein influencing amyloid plaque formation. In lung-related disorders its collaboration with proteins like elastase can affect tissue breakdown emphasizing its role in maintaining pulmonary health.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

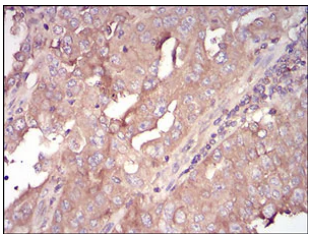
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

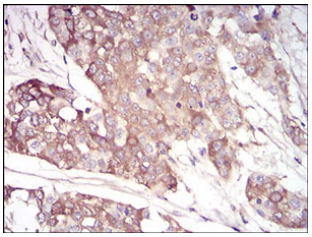
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

AACT Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-AACT antibody

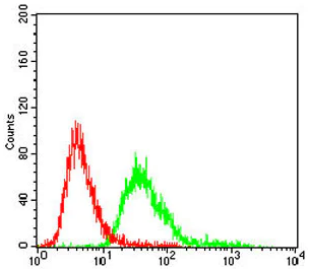
Immunohistochemical analysis of paraffin-embedded Human endometrial cancer tissue labeling AACT with ab201987 at 1/200 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

AACT Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-AACT antibody

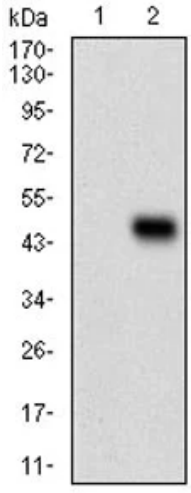
Immunohistochemical analysis of paraffin-embedded Human bladder cancer tissue labeling AACT with ab201987 at 1/200 dilution.



Flow Cytometry - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

AACT Flow Cytometry staining using mouse Anti-AACT antibody

Flow cytometric analysis of A549 cells using ab201987 at 1/200 dilution (green) and negative control (red).



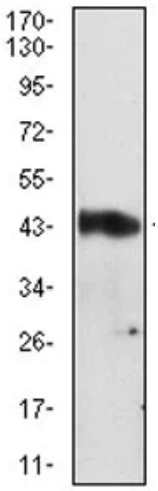
Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

All lanes:
Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987) at 1/500 dilution

Lane 1:
HEK293 cell lysate

Lane 2:
AACT (AA: 279-432)-hIgGFc transfected HEK293 cell lysate

Predicted band size: 47 kDa

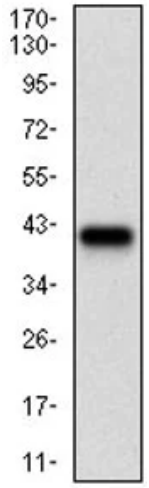


Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

All lanes:
Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987) at 1/500 dilution

All lanes:
A549 cell lysate

Predicted band size: 47 kDa



Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987)

All lanes:
Western blot - Anti-AACT antibody [5G3C11] - C-terminal (ab201987) at 1/500 dilution

All lanes:
AACT (AA: 279-432) recombinant protein

Predicted band size: 47 kDa

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