abcam

ab202122

Anti-CD73 antibody [4G6E3]

KO Validated

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 NT5E aa 1-250. The exact immunogen used to generate this antibody is proprietary information. Database link P21589
Clone number	4G6E3
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	Mouse, Rat, Cow
Dilution info	-
Notes	-

WB

Tested

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

Predicted

Species	Mouse, Rat, Cow
Dilution info	-
Notes	-

IHC-P

Tested

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

Predicted

Species	Mouse, Rat, Cow
Dilution info	-
Notes	-

Target data

See full target information NT5E

Function	Catalyzes the hydrolysis of nucleotide monophosphates, releasing inorganic phosphate and the corresponding nucleoside, with AMP being the preferred substrate (PubMed:21933152, PubMed:22997138, PubMed:23142347, PubMed:24887587, PubMed:34403084). Shows a preference for ribonucleotide monophosphates over their equivalent deoxyribose forms (PubMed:34403084). Other substrates include IMP, UMP, GMP, CMP, dAMP, dCMP, dTMP, NAD and NMN (PubMed:21933152, PubMed:22997138, PubMed:23142347, PubMed:24887587, PubMed:34403084).

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

Notes

This product was changed from ascites to supernatant. Lot no's high than GR287343-13 are from Tissue Culture Supernatant

Supplementary info

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

Activity summary	CD73 also known as ecto-5'-nucleotidase is an enzyme that functions at the cellular level. The CD73 protein hydrolyzes extracellular nucleotides into nucleosides by removing phosphate groups. It is a 70 kDa glycosylphosphatidylinositol-anchored molecule found on the surface of various cell types including endothelial cells lymphocytes and epithelial cells. Its presence is noted in a wide range of tissues across the human body highlighting its versatile role in cellular communication and metabolism.

Biological function summary	CD73 participates in the regulation of purinergic signaling through adenosine production. It acts in cooperation with other cell surface enzymes such as CD39 forming a functional complex that handles ATP breakdown to adenosine. This enzymatic activity modulates immune responses tissue protection and inflammation control. In addition to immune-related functions CD73 supports the maintenance of vascular integrity and proper cellular adhesion which is important in different physiological and pathological contexts.
Pathways	CD73 plays an important part in the adenosinergic pathway governing the conversion of AMP into adenosine. This activity impacts the signaling and function of the adenosine receptors on immune and non-immune cells. Another important pathway is the angiogenesis process where CD73 contributes by affecting endothelial cell migration and blood vessel development. Relationships with key proteins such as adenosine A2 receptors help facilitate these critical pathway activities.
Associated diseases and disorders	CD73's involvement with immunosuppression and tumor progression becomes significant. Elevated levels of CD73 are frequently observed in some cancers where it aids in creating a favorable tumor microenvironment through increased adenosine production. This situation assists tumor cells in evading immune detection. Additionally CD73 is linked to autoimmune diseases like multiple sclerosis where it contributes to modulated lymphocyte activity. Connections with proteins such as TGF-beta further illustrate its role in disease-related pathways creating potential targets for therapeutic interventions through the use of anti-CD73 antibodies.

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

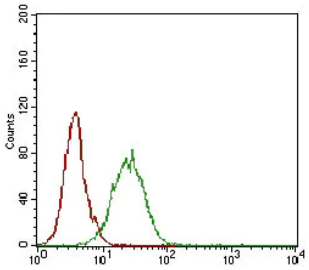
We do not recommend this combination. It is not covered by our product promise.

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.

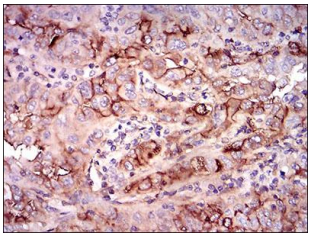
7 product images



Flow Cytometry - Anti-CD73 antibody [4G6E3] (ab202122)

CD73 Flow Cytometry staining using mouse Anti-CD73 antibody

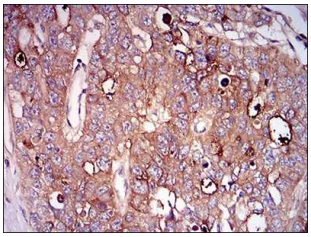
Flow cytometric analysis of A431 cells using ab202122 at 1/200 (green) and negative control (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD73 antibody [4G6E3] (ab202122)

CD73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD73 antibody

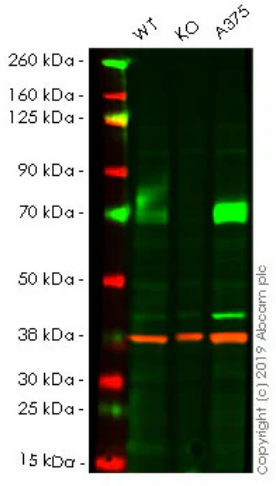
Immunohistochemical analysis of paraffin-embedded Human endometrial cancer tissue labeling CD73 with ab202122 at 1/200 with DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD73 antibody [4G6E3] (ab202122)

CD73 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD73 antibody

Immunohistochemical analysis of paraffin-embedded Human esophageal cancer tissue labeling CD73 with ab202122 at 1/200 with DAB staining.



Western blot - Anti-CD73 antibody [4G6E3] (ab202122)

CD73 Western blot staining using mouse Anti-CD73 antibody

Lanes 1 - 3: Merged signal (red and green). Green - ab202122 observed at 63 kDa. Red - loading control, ab181602, observed at 37 kDa.
ab202122 was shown to recognize NT5E in wild-type A-431 cells as signal was lost at the expected MW in NT5E knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and NT5E knockout samples were subjected to SDS-PAGE. ab202122 and ab181602 (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed ab216772 and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed ab216777 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-CD73 antibody [4G6E3] (ab202122) at 1/1000 dilution

Lane 1:
Wild-type A-431 whole cell lysate at 20 µg

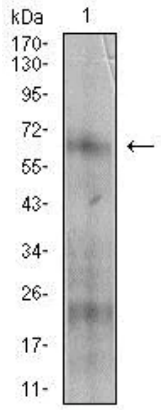
Lane 2:
NT5E knockout A-431 (Human epidermoid carcinoma cell line) whole cell lysate at 20 µg

Lane 2:
Western blot - Human NT5E knockout A-431 cell lysate (ab261704) at 20 µg

Lane 3:
A375 (Human malignant melanoma cell line) whole cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 63 kDa

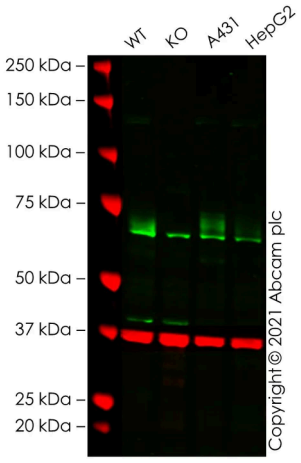


Western blot - Anti-CD73 antibody [4G6E3] (ab202122)

All lanes:
Western blot - Anti-CD73 antibody [4G6E3] (ab202122) at 1/500 dilution

All lanes:
A431 cell lysate

Predicted band size: 63 kDa



Western blot - Anti-CD73 antibody [4G6E3] (ab202122)

CD73 Western blot staining using mouse Anti-CD73 antibody

False colour image of Western blot: Anti-CD73 antibody [4G6E3] staining at 1/500 dilution, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (ab181602) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab202122 was shown to bind specifically to CD73. A band was observed at 65-70 kDa in wild-type A-375 cell lysates with no signal observed at this size in NT5E knockout cell line ab281591 (knockout cell lysate ab282943). A cross-reactive band is observed at 65 kDa in all samples. To generate this image, wild-type and NT5E knockout A-375 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (ab216772) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (ab216777) at 1/20000 dilution.
All lanes:
Western blot - Anti-CD73 antibody [4G6E3] (ab202122) at 1/500 dilution

Lane 1:
Wild-type A-375 cell lysate at 20 µg

Lane 2:
NT5E knockout A-375 cell lysate at 20 µg

Lane 2:
Western blot - Human NT5E knockout A375 cell line (ab281591)

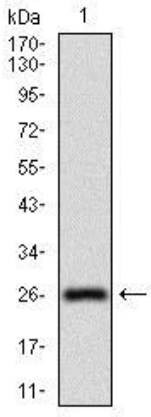
Lane 3:
A431 cell lysate at 20 µg

Lane 4:
HepG2 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 63 kDa

Observed band size: 65 kDa, 65-70 kDa



Western blot - Anti-CD73 antibody [4G6E3] (ab202122)

Expected MW is 26.6 kDa
All lanes:
Western blot - Anti-CD73 antibody [4G6E3] (ab202122) at 1/500 dilution

All lanes:
Human CD73 (AA: 30-250) recombinant protein

Predicted band size: 63 kDa

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