abcam

ab140671

Anti-Hyaluronan synthase 2 antibody [4E7]

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 Hyaluronan synthase 2 aa 50-200. The exact immunogen used to generate this antibody is proprietary information. Database link Q92819
Clone number	4E7
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	0.1 µg for 10^6 Cells

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

WB

Tested

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

IHC-P

Tested

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

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	-

Target data

See full target information Hyaluronan synthase 2

Function	Catalyzes the addition of GlcNAc or GlcUA monosaccharides to the nascent hyaluronan polymer (Probable) (PubMed:20507985, PubMed:21228273, PubMed:23303191, PubMed:32993960). Therefore, it is essential to hyaluronan synthesis a major component of most extracellular matrices that has a structural role in tissues architectures and regulates cell adhesion, migration and differentiation (PubMed:20507985, PubMed:21228273, PubMed:8798477). This is one of three isoenzymes responsible for cellular hyaluronan synthesis and it is particularly responsible for the synthesis of high molecular mass hyaluronan (By similarity).

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

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

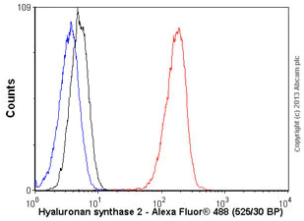
We do not recommend this combination. It is not covered by our product promise.

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.

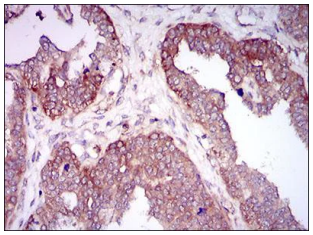
6 product images



Flow Cytometry - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

Hyaluronan synthase 2 Flow Cytometry staining using mouse Anti-Hyaluronan synthase 2 antibody

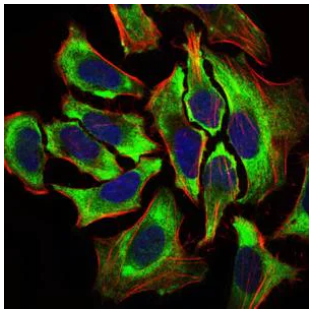
Overlay histogram showing HeLa cells stained with ab140671 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab140671, 0.1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

Hyaluronan synthase 2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Hyaluronan synthase 2 antibody

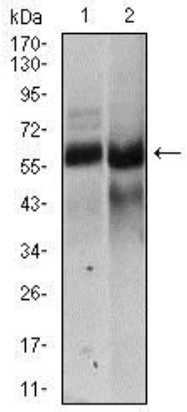
Immunohistochemical analysis of paraffin-embedded Human ovarian cancer tissue labeling Hyaluronan synthase 2 with ab140671 at 1/200 dilution followed by DAB staining.



Immunocytochemistry/ Immunofluorescence - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

Hyaluronan synthase 2 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Hyaluronan synthase 2 antibody

Immunofluorescenct analysis of HeLa cells labelling Hyaluronan synthase 2 with ab140671 at 1/100 dilution (green); Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



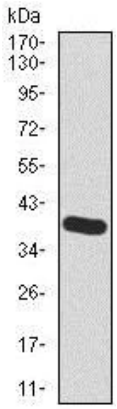
Western blot - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

All lanes:
Western blot - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671) at 1/500 dilution

Lane 1:
NTERA2 cell lysate

Lane 2:
HEK293 cell lysate

Predicted band size: 64 kDa



Western blot - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

Expected MW is 37.5 kDa
All lanes:
Western blot - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671) at 1/500 dilution

All lanes:
Recombinant Human Hyaluronan synthase 2 protein

Predicted band size: 64 kDa

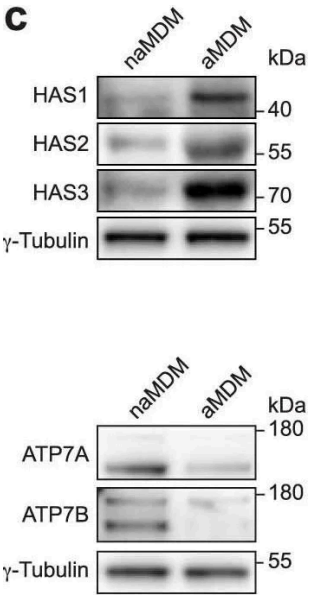


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Western blot - Anti-Hyaluronan synthase 2 antibody [4E7] (ab140671)

Hyaluronan synthase 2 western blot using anti-Hyaluronan synthase 2 antibody [4E7] ab140671. Publication image and figure legend from Solier, S., Müller, S., et al., 2023, Nature, PubMed 37100912.

ab140671 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab140671 please see the product overview.

CD44 mediates the uptake of metals in inflammatory macrophages.a, ICP-MS of cellular metals in aMDM treated with an anti-CD44 antibody RG7356 during activation (n = 7 donors). b, ICP-MS of cellular metals in aMDM supplemented with HA (0.6-1 MDa) or permethylated (meth-) HA during activation (n = 6 donors). c, Western blots of hyaluronan synthases (HAS) (n = 6 donors) and ATP7A/B (n = 8 donors) in MDM. d, Fluorescence microscopy of a lysosomal copper(II) probe (Lys-Cu) in aMDM under CD44 knockdown conditions (n = 5 donors). e, Fluorescence microscopy of CTR2 and Lamp2 in aMDM (n = 4 donors). f, Fluorescence microscopy of a lysosomal copper(II) probe (Lys-Cu) in aMDM under CTR2 knockdown conditions (n = 5 donors). For d–f, Scale bars, 10 μm. For a, c, d and f two-sided Mann-Whitney test. For b, Kruskal-Wallis test with Dunn’ s post-test. Box plots: boxes represent interquartile range and median, and whiskers indicate the minimum and maximum values. Each colored dot represents a distinct donor for a given panel.Source data

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