abcam

ab27043

Anti-58K Golgi protein antibody [58K-9] - Golgi Marker

Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043) is a mouse monoclonal antibody detecting 58K Golgi protein in **Western Blot, Flow Cytometry (Intra)**. Suitable for **Human, Rat**.

- Over 60 publications
- Trusted since 2006

Lab Essentials

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	58K-9
Purification technique	Affinity purification
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC

Tested

Species	Human
Dilution info	5-10 µg/mL
Notes	Previous batches have worked at the concentration of 1µg/ml. Our current batch appears to work between 5 and 10 µg/ml. Please see the data below for more details.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Hamster, Cow, Dog, Pig, Monkey, African green monkey
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	2 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Hamster, Cow, Dog, Pig, Monkey, African green monkey

Dilution info	-
Notes	-

WB

Tested

Species	Rat
Dilution info	1-5 µg/mL
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Hamster, Cow, Dog, Pig, Monkey, African green monkey
Dilution info	-
Notes	-

Target data

See full target information FTCD

Function	Folate-dependent enzyme, that displays both transferase and deaminase activity. Serves to channel one-carbon units from formiminoglutamate to the folate pool. Binds and promotes bundling of vimentin filaments originating from the Golgi.

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, Store in the dark

Notes

What is this antibody validated in?
Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt) in Human, Rat samples.

What is the molecular weight of 58K Golgi protein?
Anti-58K Golgi protein [58K-9] - Golgi Marker (ab27043) specifically detects a band for 58K Golgi protein (UniProt: O88618) at a molecular weight of 58kDa.

Trusted by the scientific community
Anti-58K Golgi protein [58K-9] - Golgi Marker (ab27043) was first used in a scientific publication in 2006 and has been cited over 60 times in peer-reviewed journals.

Reviewed by scientists
Anti-58K Golgi protein [58K-9] - Golgi Marker (ab27043) has over 15 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [58K-9] also available for your convenience: ab27043, HRP - ab202001

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

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

Activity summary	The 58K Golgi protein also known as Golgi marker protein is a significant component within the Golgi apparatus with a molecular mass of approximately 58 kilodaltons (kDa). This protein is widely expressed in eukaryotic cells and serves as an important marker for studying the structure and function of the Golgi apparatus. The 58K Golgi protein localizes predominantly to the membranes of the Golgi where it plays an integral role in the maintenance of its architecture and function. Researchers often use this protein in Golgi immunofluorescence studies to visualize and track Golgi dynamics and morphology.

Biological function summary	The 58K Golgi protein contributes to the Golgi's role in modifying sorting and packaging proteins and lipids for secretion or delivery to other organelles. It does not function alone but often interacts with other Golgi markers and proteins forming part of a complex that helps regulate intracellular transport processes. These interactions are important for maintaining Golgi function and cellular protein distribution. By acting as a Golgi biomarker the 58K Golgi protein aids in understanding the trafficking and processing pathways essential for cellular function.
Pathways	The 58K Golgi protein is involved in the vesicular transport pathway which is essential for trafficking proteins between the endoplasmic reticulum (ER) and the Golgi apparatus. It interacts with other proteins like COPI and COPII which are critical for vesicle formation and movement through this pathway. This protein also plays a role in the glycosylation pathway where nascent proteins undergo carbohydrate modification in the Golgi. Such modifications assist in protein folding stability and cell signaling. The integration of 58K Golgi protein in these pathways highlights its importance in sustaining cellular operations.
Associated diseases and disorders	The 58K Golgi protein has correlations with some pathologies associated with Golgi dysfunction including congenital disorders of glycosylation and neurodegenerative diseases such as Alzheimer's disease. Disruptions in Golgi structure and function can lead to improper protein sorting and trafficking which is observed in these disorders. Proteins such as amyloid precursor protein (APP) in Alzheimer's are impacted by disruptions in the Golgi pathway where 58K Golgi protein plays a role. Understanding these connections can help in developing therapeutic strategies targeting Golgi-associated dysfunctions.

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

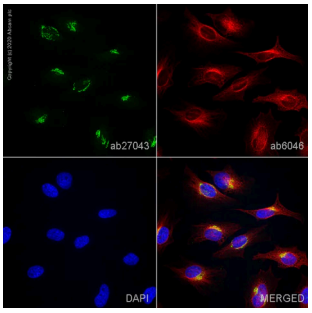
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images



Immunocytochemistry - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043)

58K Golgi protein Immunocytochemistry staining using mouse Anti-58K Golgi protein antibody

ab27043 staining 58K Golgi protein - Golgi Marker in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab27043 at 5µg/ml and ab6046, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with ab150117, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150080, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

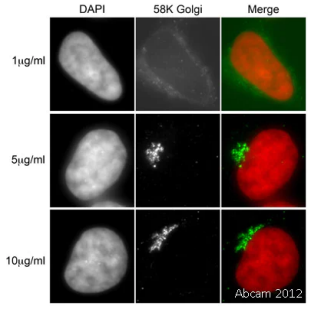
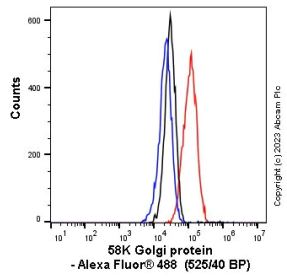


Image courtesy of Dr. Kirk McManus, Univ. of Manitoba/Cancer Care MICB, Canada

Immunocytochemistry - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043)

58K Golgi protein Immunocytochemistry staining using mouse Anti-58K Golgi protein antibody

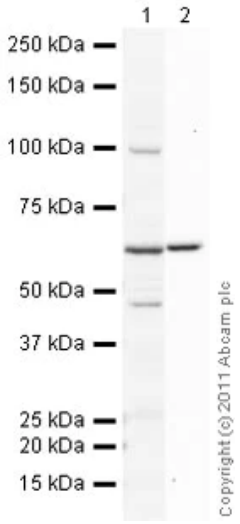
ab27043 (1µg/ml, 5µg/ml and 10µg/ml) staining 58K Golgi protein in SK-N-SH cells (green). Cells were fixed in Methanol, permabilised using 0.5% Triton X100 in PBS and counterstained with DAPI in order to highlight the nucleus (red).



Flow Cytometry (Intracellular) - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043)

58K Golgi protein Flow Cytometry (Intracellular) staining of HepG2 Cells using mouse Anti-58K Golgi protein antibody

Overlay histogram showing HepG2 cells stained with ab27043 (red line). The cells were PFA-fixed 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 (ab27043, 2µg/1x106 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x106 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043)

58K Golgi protein Western blot staining using mouse Anti-58K Golgi protein antibody

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.
All lanes:
Western blot - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043) at 1 µg/mL

Lane 1:
Liver (Rat) Tissue Lysate, blocked with 5% BSA at 20 µg

Lane 2:
Liver (Rat) Tissue Lysate, blocked with 3% Milk at 20 µg

Secondary

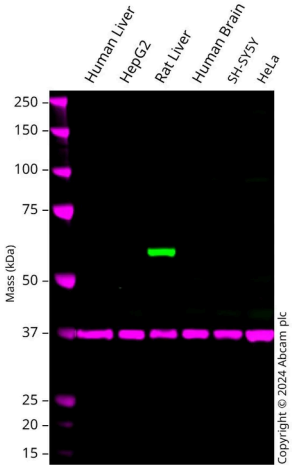
All lanes:
Western blot - Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 58 kDa

Exposure time: 3min



Western blot - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043)

Western blot: Anti-FTCD antibody [58K-9] (ab27043) staining at 2.5 ug/ml, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (ab181602) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab27043 was shown to bind specifically to FTCD. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution 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 800CW and Goat anti-Rabbit IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043) at 2.5 µg/mL

Lane 1:
Human Liver cell lysate at 30 µg

Lane 2:
HepG2 cell lysate at 30 µg

Lane 3:
Rat Liver cell lysate at 30 µg

Lane 4:
Human Brain cell lysate at 30 µg

Lane 5:
SH-SY5Y cell lysate at 30 µg

Lane 6:

HeLa cell lysate at 30 µg

Secondary

All lanes:
Goat anti-Mouse IgG H&L 800CW and Goat anti-Rabbit IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 58 kDa

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