abcam

Product datasheet

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

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Overview

Product name	Anti-58K Golgi protein antibody [58K-9] - Golgi Marker
Description	Mouse monoclonal [58K-9] to 58K Golgi protein - Golgi Marker
Host species	Mouse
Tested applications	**Suitable for:** ICC, WB, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Rat, Human **Predicted to work with:** Hamster, Cow, Dog, Pig, Monkey, African green monkey
Immunogen	Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.
Positive control	Rat Liver and HeLa cells. For indirect immunofluorescence: cultured Chinese hamster ovary (CHO) cells For immunoblotting (colorimetric): whole rat liver extract Antigen M.W.: 58 kDa
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Protein G purified
Clonality	Monoclonal

Clone number	58K-9
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab27043 in the following tested applications.

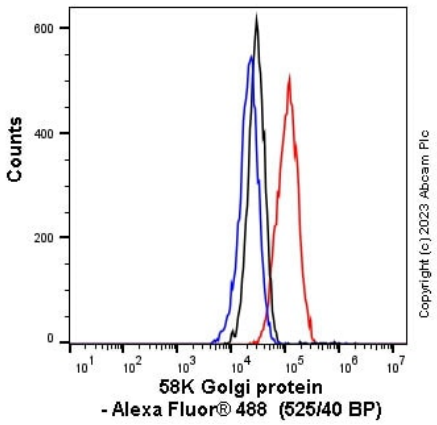
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC	★★★★☆ (3)	Use a concentration of 5 - 10 µg/ml. 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.
WB	★★★★★ (2)	Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 58 kDa (predicted molecular weight: 58 kDa).
Flow Cyt (Intra)		Use 2µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

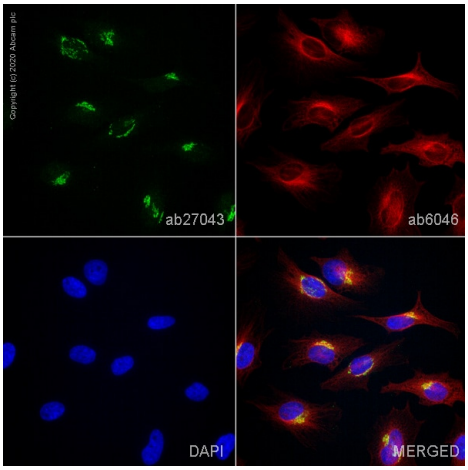
Function	Folate-dependent enzyme, that displays both transferase and deaminase activity. Serves to channel one-carbon units from formiminoglutamate to the folate pool. Binds and promotes bundling of vimentin filaments originating from the Golgi.
Pathway	Amino-acid degradation; L-histidine degradation into L-glutamate; L-glutamate from N-formimidoyl-L-glutamate (transferase route): step 1/1. One-carbon metabolism; tetrahydrofolate interconversion.
Involvement in disease	Defects in FTCD are the cause of glutamate formiminotransferase deficiency (FIGLU-URIA) [MIM:229100]; also known as formiminoglutamicaciduria (FIGLU-uria). It is an autosomal recessive disorder. Features of a severe phenotype, include elevated levels of formiminoglutamate (FIGLU) in the urine in response to histidine administration, megaloblastic anemia, and mental retardation. Features of a mild phenotype include high urinary excretion of FIGLU in the absence of histidine administration, mild developmental delay, and no hematological abnormalities.
Sequence similarities	In the C-terminal section; belongs to the cyclodeaminase/cyclohydrolase family. In the N-terminal section; belongs to the formiminotransferase family.
Cellular localization	Cytoplasm > cytoskeleton > centrosome > centriole. Golgi apparatus. More abundantly located around the mother centriole.

Images



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

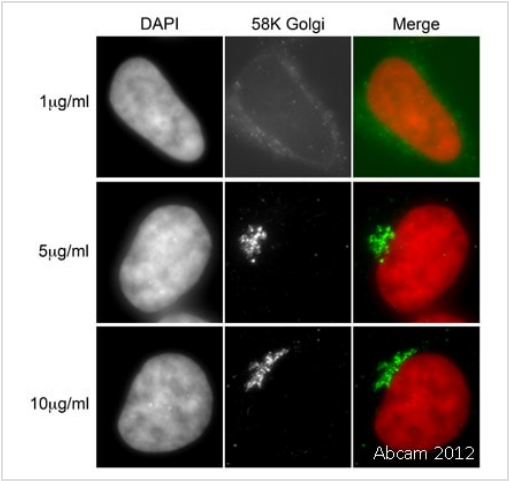
Overlay histogram showing HepG2 cells stained with ab27043 (red line). The cells were PFA-fixed and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab27043, 2µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



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

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).

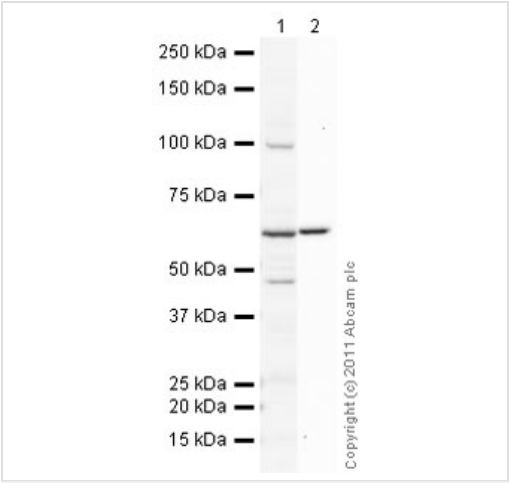
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



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

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

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).



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

All lanes : Anti-58K Golgi protein antibody [58K-9] - Golgi Marker (ab27043) at 1 µg/ml

Lane 1 : Liver (Rat) Tissue Lysate, blocked with 5% BSA
Lane 2 : Liver (Rat) Tissue Lysate, blocked with 3% Milk

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : 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: 3 minutes

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.

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