Product datasheet

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

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: WB, Functional Studies, Flow Cyt, ICC/IF

Species reactivity
Reacts with: Rat, Hamster, Cow, Dog, Human, Monkey, African green monkey
Predicted to work with: Pig

Immunogen
corresponding to 58K Golgi protein.

Positive control
Rat Liver. 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 this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information here.

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: 7.4
Preservative: 0.02% Sodium azide
Constituents: PBS, 50% Glycerol

Purity
IgG fraction

Clonality
Monoclonal

Clone number
58K-9

Isotype
IgG1

Applications
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
Image courtesy of Dr. Kirk McManus, Univ. of Manitoba/Cancer Care MCB, 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.

Overlay histogram showing HepG2 cells stained with ab27043 (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 (ab27043, 2µg/1x10^6 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/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

ICC/IF image of ab27043 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab27043, 1µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).

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