# Product datasheet

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

### Overview

**Product name**

**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

**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

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.40&lt;br&gt;Preservative: 0.02% Sodium azide&lt;br&gt;Constituents: PBS, 50% Glycerol</td>
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<tr>
<td><strong>Purity</strong></td>
<td>IgG fraction</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>58K-9</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1</td>
</tr>
</tbody>
</table>

## Applications
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 58 kDa (predicted molecular weight: 58 kDa).</td>
</tr>
<tr>
<td>Functional Studies</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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</tbody>
</table>
| Flow Cyt |         | Use 2µg for 10^6 cells.  
ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |
| ICC/IF | 🌟🌟🌟🌟🌟 | 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. |

**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.

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.

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 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.

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).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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