AIM2 (D5X7K) Rabbit mAb

Applications: WB, IP

Reactivity: H

Sensitivity: Endogenous

MW (kDa): 40

Source/Isotype: Rabbit IgG

UniProt ID: #Q14862

Entrez-Gene Id: 9447

Product Usage Information

Application
Western Blotting
Immunoprecipitation

Dilution
1:1000
1:100

Storage
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity
AIM2 (D5X7K) Rabbit mAb recognizes endogenous levels of total AIM2 protein. An unknown band is detected at 22 kDa in some cell lines.

Species predicted to react based on 100% sequence homology:
Monkey

Source / Purification
Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys93 of human AIM2 protein.

Background
Absent in melanoma 2 (AIM2) is an interferon-inducible protein containing an amino-terminal pyrin domain and carboxy-terminal HIN-200 domain that functions in innate immunity and tumor progression (1). Expression of AIM2 can inhibit cell growth and tumor formation (2,3). Furthermore, the AIM2 gene has a high frequency of mutations associated with microsatellite-unstable colorectal cancers (4). AIM2 has a critical role in the activation of caspase-1, the protease responsible for the processing of pro-inflammatory cytokines IL-1β and IL-18. Caspase-1 activation is regulated by multi-protein complexes referred to as "inflammasomes" (5,6). Distinct inflammasome complexes have been described containing NLRP1/NALP1, NLRP3/NALP3, IPAF, and AIM2. The HIN-200 domain of AIM2 is responsible for binding to cytoplasmic double-stranded DNA, resulting in caspase-1 activation. (7-9). This inflammasome complex also involves binding of the pyrin domain of AIM2 to the CARD-domain protein ASC/TMS1, which then interacts directly with caspase-1. As a result, AIM2 has been demonstrated to be an important sensor for a number of different pathogens (10-12).

Background References

Species Reactivity
Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer
IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key
WB: Western Blotting
IP: Immunoprecipitation

https://www.cellsignal.com/datasheet.jsp?productId=12948&images=0&protocol=0
Cross-Reactivity Key

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>human</td>
</tr>
<tr>
<td>M</td>
<td>mouse</td>
</tr>
<tr>
<td>R</td>
<td>rat</td>
</tr>
<tr>
<td>Hm</td>
<td>hamster</td>
</tr>
<tr>
<td>Mk</td>
<td>monkey</td>
</tr>
<tr>
<td>Vir</td>
<td>virus</td>
</tr>
<tr>
<td>Mi</td>
<td>mink</td>
</tr>
<tr>
<td>C</td>
<td>chicken</td>
</tr>
<tr>
<td>Dm</td>
<td>D. melanogaster</td>
</tr>
<tr>
<td>X</td>
<td>Xenopus</td>
</tr>
<tr>
<td>Z</td>
<td>zebrafish</td>
</tr>
<tr>
<td>B</td>
<td>bovine</td>
</tr>
<tr>
<td>Pg</td>
<td>pig</td>
</tr>
<tr>
<td>Sc</td>
<td>S. cerevisiae</td>
</tr>
<tr>
<td>Ce</td>
<td>C. elegans</td>
</tr>
<tr>
<td>Hr</td>
<td>horse</td>
</tr>
<tr>
<td>GP</td>
<td>Guinea Pig</td>
</tr>
<tr>
<td>Rab</td>
<td>rabbit</td>
</tr>
<tr>
<td>All</td>
<td>all species expected</td>
</tr>
</tbody>
</table>

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
XP is a registered trademark of Cell Signaling Technology, Inc.
All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.