



# Rabbit Anti-Human AIM2 monoclonal antibody, clone 23059 (CABT-L1905)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Specificity</b>	This Rabbit mAb recognizes endogenous levels of total AIM2 protein. An unknown band is detected at 22 kDa in some cell lines.
<b>Target</b>	AIM2
<b>Immunogen</b>	Synthetic peptide corresponding to residues surrounding Lys93 of human AIM2 protein.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Monkey
<b>Clone</b>	23059
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, IP
<b>Molecular Weight</b>	40kDa
<b>Format</b>	Liquid
<b>Concentration</b>	Lot specific
<b>Size</b>	100 µl
<b>Buffer</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol.
<b>Preservative</b>	0.02% Sodium Azide

**Storage**

-20°C. Avoid Freeze/Thaw Cycles. Do not aliquot the antibody.

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## BACKGROUND

**Introduction**

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. Expression of AIM2 can inhibit cell growth and tumor formation. Furthermore, the AIM2 gene has a high frequency of mutations associated with microsatellite-unstable colorectal cancers. AIM2 has a critical role in the activation of caspase-1, the protease responsible for the processing of pro-inflammatory cytokines IL-1 $\beta$  and IL-18. Caspase-1 activation is regulated by multi-protein complexes referred to as "inflammasomes". 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. 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.

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**Keywords**

AIM2; absent in melanoma 2; interferon-inducible protein AIM2; PYHIN4

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## GENE INFORMATION

**Entrez Gene ID**

[9447](#)

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**UniProt ID**

[O14862](#)

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