

## cGAS Rabbit pAb (AR20061)

### Key Features

Host Species:	Rabbit
Reactivity:	Human, Mouse
Applications:	WB
Isotype:	IgG
MW:	57 kD (Calculated)

### Recommended Dilution Ratios

WB:	1:500-2000
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### Storage

-15°C to -25°C/1 year (Do not lower than -25°C)

### Basic Information

Clonality	Polyclonal
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### Immunogen Information

Specificity	This antibody detects endogenous levels of M21D1 at Human
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### Target Information

Gene name	MB21D1 cGAS C6orf150
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Protein Name	M21D1
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Organism	Gene ID	UniProt ID
Human	115004	Q8N884

### Cellular Localization

Nucleus . Chromosome . Cell membrane ; Peripheral membrane protein . Cytoplasm, cytosol . Mainly localizes in the nucleus, and at low level in the cytosol (PubMed:31808743, PubMed:31544964). On chromosomes, enriched on centromeric satellite and LINE DNA repeat elements (PubMed:30811988). Exported from the nucleus to the cytosol in a XPO1/CRM1 via the nuclear export signal in response to DNA stimulation (PubMed:33406424). Outside the nucleus, localizes at the cell membrane as a peripheral membrane protein in resting conditions: association to the cell membrane is mediated via binding to phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2) (PubMed:30827685). Localization at the cell

membrane is required to limit the recognition of self-DNA (PubMed:30827685). Following detection of double-stranded DNA (dsDNA), released from the cell membrane into the cytosol in order to signal (PubMed:30827685). Upon transfection with dsDNA forms punctate structures that co-localize with DNA and Beclin-1 (BECN1) (PubMed:26048138). Phosphorylation at Tyr-215 promotes cytosolic retention (PubMed:30356214). In response to translation stress, translocates to the cytosol and associates with collided ribosomes (PubMed:34111399). ; (Microbial infection) Upon infection with virulent *M.tuberculosis* forms aggregates with dsDNA, non-virulent bacteria (without the ESX-1 locus) do not form these aggregates (PubMed:26048138).

Tissue specificity

Expressed in the monocytic cell line THP1.

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