Phospho-CGAS-S291 Rabbit Polyclonal Antibody

CABP0945

Product Information

Size:

20uL, 50uL, 100uL, 200uL

Observed MW:

Refer to figures

Calculated MW:

59kDa

Applications:

WB

Reactivity:

Mouse

Antibody Information

Recommended dilutions:
WB 1:500 - 1:2000

Source:
Rabbit

Isotype:
IgG

Purification:
Affinity purification

Protein Background

Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP and plays a key role in innate immunity (PubMed:23258413, PubMed:23707061, PubMed:23722159, PubMed:24077100, PubMed:25131990, PubMed:29976794, PubMed:30799039). Catalysis involves both the formation of a 2', 5' phosphodiester linkage at the GpA step and the formation of a 3', 5' phosphodiester linkage at the ApG step, producing c[G(2', 5')pA(3', 5')p] (PubMed:28363908, PubMed:28214358). Acts as a key cytosolic DNA sensor, the presence of double-stranded DNA (dsDNA) in the cytoplasm being a danger signal that triggers the immune responses (PubMed:28363908). Binds cytosolic DNA directly, leading to activation and synthesis of cGAMP, a second messenger that binds to and activates TMEM173/STING, thereby triggering type-I interferon production (PubMed:28363908, PubMed:28314590). Preferentially recognizes and binds curved long DNAs (PubMed:30007416). In contrast to other mammals, human CGAS displays species-specific mechanisms of DNA recognition and produces less cyclic GMP-AMP (cGAMP), allowing a more fine-tuned response to pathogens (PubMed:30007416).

Immunogen information

Gene ID:
115004

Uniprot
Q8N884

Synonyms:
MB21D1; C6orf150; cGAS; h-cGAS; CGAS

Immunogen:
A synthetic phosphorylated peptide around S291 of human CGAS.

Storage:
Store at -20℃. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Product Images