cGAS (D-9): sc-515777

BACKGROUND
The presence of foreign DNA in the cytoplasm induces an antiviral host immune response. DNA in the cytoplasm triggers the production of interferons by activating and synthesis of second messenger cyclic guanosine monophosphate-adenosine monophosphate (cyclic GMP-AMP, or cGAMP). cGAS (cyclic GMP-AMP synthase), also known as MB21D1 (Mab-21 domain containing 1), h-cGAS or C6orf150, is a 522 amino acid cytoplasmic nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP. cGAS is suggested to have antiviral activity by acting as a key cytosolic DNA sensor. cGAS binds to cytosolic DNA, which leads to cGAMP synthesis and activation of TMEM173, thereby trigger type-I interferon production. Expressed in monocyte cell line THP1, cGAS exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 6q13.

CHROMOSOMAL LOCATION
Genetic locus: MB21D1 (human) mapping to 6q13.

SOURCE
Cyclic GMP-AMP synthase, also known as MB21D1 (Mab-21 domain containing 1), h-cGAS or C6orf150, is a 522 amino acid cytoplasmic nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP.

PRODUCT
Each vial contains 200 µg IgGk kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cGAS (D-9) is available conjugated to agarose (sc-515777 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515777 HRP), 200 µg/ml, for WB, IHC/IP and ELISA; to either phycocerythrin (sc-515777 PE), fluorescein (sc-515777 FITC), Alexa Fluor® 488 (sc-515777 AF488), Alexa Fluor® 546 (sc-515777 AF546), Alexa Fluor® 594 (sc-515777 AF594) or Alexa Fluor® 647 (sc-515777 AF647), 200 µg/ml, for WB (RGB), IF, IHC/IP and FCM; and to either Alexa Fluor® 680 (sc-515777 AF680) or Alexa Fluor® 790 (sc-515777 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS


RESEARCH USE
For research use only, not for use in diagnostic procedures.

DATA

1. Selectivity data shows positive controls.

SELECT PRODUCT CITATIONS

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For research use only, not for use in diagnostic procedures.