

Gas8 (G-12): sc-390346



The Power to Question

BACKGROUND

Gas8 (growth arrest-specific 8), also known as Gas11, is a 478 amino acid protein that localizes to the Golgi apparatus, as well as to the cytoplasm and the flagellar basal body, and belongs to the growth arrest-specific protein family. Expressed in liver, heart and skeletal muscle with lower levels present in lung, brain, kidney and placenta, Gas8 functions as a cytoskeletal linker that binds microtubules and is thought to play a role in axonemal and non-axonemal dynein regulation. Gas8 may also be involved in spermatozoa motility and, when defective, may be associated with infertility in males lacking gametocytes. The gene encoding Gas8 maps to a region on human chromosome 16 that is frequently deleted in breast and prostate cancer, suggesting a role for Gas8 in tumorigenesis.

REFERENCES

- Whitmore, S.A., et al. 1998. Characterization and screening for mutations of the growth arrest-specific 11 (Gas11) and C16orf3 genes at 16q24.3 in breast cancer. *Genomics* 52: 325-331.
- Yeh, S.D., et al. 2002. Isolation and properties of Gas8, a growth arrest-specific gene regulated during male gametogenesis to produce a protein associated with the sperm motility apparatus. *J. Biol. Chem.* 277: 6311-6317.

CHROMOSOMAL LOCATION

Genetic locus: GAS8 (human) mapping to 16q24.3; Gas8 (mouse) mapping to 8 E2.

SOURCE

Gas8 (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 55-66 near the N-terminus of Gas8 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Gas8 (G-12) is available conjugated to agarose (sc-390346 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390346 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390346 PE), fluorescein (sc-390346 FITC), Alexa Fluor® 488 (sc-390346 AF488), Alexa Fluor® 546 (sc-390346 AF546), Alexa Fluor® 594 (sc-390346 AF594) or Alexa Fluor® 647 (sc-390346 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390346 AF680) or Alexa Fluor® 790 (sc-390346 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390346 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Gas8 (G-12) is recommended for detection of Gas8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Gas8 (G-12) is also recommended for detection of Gas8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Gas8 siRNA (h): sc-75107, Gas8 siRNA (m): sc-75108, Gas8 shRNA Plasmid (h): sc-75107-SH, Gas8 shRNA Plasmid (m): sc-75108-SH, Gas8 shRNA (h) Lentiviral Particles: sc-75107-V and Gas8 shRNA (m) Lentiviral Particles: sc-75108-V.

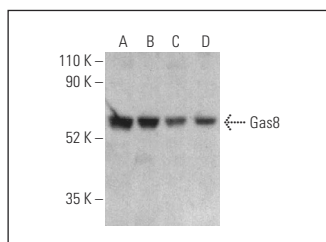
Molecular Weight of Gas8: 60 kDa.

Positive Controls: Gas8 (m): 293T Lysate: sc-120423, U-87 MG cell lysate: sc-2411 or EOC 20 whole cell lysate: sc-364187.

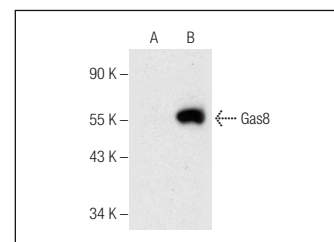
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Gas8 (G-12) HRP: sc-390346 HRP. Direct western blot analysis of Gas8 expression in U-87 MG (A), EOC 20 (B), C6 (C) and NIH/3T3 (D) whole cell lysates.



Gas8 (G-12): sc-390346. Western blot analysis of Gas8 expression in non-transfected: sc-117752 (A) and mouse Gas8 transfected: sc-120423 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Zheng, R., et al. 2022. Dnah9 mutant mice and organoid models recapitulate the clinical features of patients with PCD and provide an excellent platform for drug screening. *Cell Death Dis.* 13: 559.

RESEARCH USE

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