

# GRIFIN (50): sc-136350

## BACKGROUND

GRIFIN (galectin-related inter-fiber protein) is a novel 144 amino acid protein that exists as a homodimer and contains one galectin domain. A highly abundant soluble lens protein, GRIFIN is thought to function as an  $\alpha$ -crystallin binding partner and is encoded by a gene that maps to mouse chromosome 5 G2. GRIFIN is considered a putative protein in human and maps to chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

## REFERENCES

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3. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
4. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126: 113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
7. Leone, G., et al. 2007. Therapy-related leukemia and myelodysplasia: susceptibility and incidence. *Haematologica* 92: 1389-1398.
8. Barton, K.A., et al. 2009. Interactions between small heat shock protein  $\alpha$ -crystallin and galectin-related interfiber protein (GRIFIN) in the ocular lens. *Biochemistry* 48: 3956-3966.

## CHROMOSOMAL LOCATION

Genetic locus: Grifin (mouse) mapping to 5 G2.

## SOURCE

GRIFIN (50) is a mouse monoclonal antibody raised against amino acids 31-144 of GRIFIN of rat origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GRIFIN (50) is available conjugated to agarose (sc-136350 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136350 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136350 PE), fluorescein (sc-136350 FITC), Alexa Fluor<sup>®</sup> 488 (sc-136350 AF488), Alexa Fluor<sup>®</sup> 594 (sc-136350 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-136350 AF647), 200  $\mu$ g/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-136350 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-136350 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

GRIFIN (50) is recommended for detection of GRIFIN of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for GRIFIN siRNA (m): sc-145764, GRIFIN shRNA Plasmid (m): sc-145764-SH and GRIFIN shRNA (m) Lentiviral Particles: sc-145764-V.

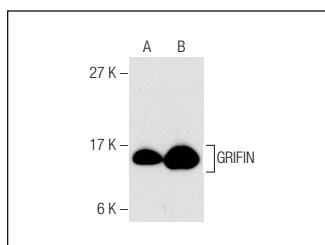
Molecular Weight of GRIFIN: 16 kDa.

Positive Controls: mouse eye extract: sc-364241 or rat eye extract: sc-364805.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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).

## DATA



GRIFIN (50): sc-136350. Western blot analysis of GRIFIN expression in mouse eye (A) and rat eye (B) tissue extracts.

## STORAGE

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