

Glomulin (YY-Z): sc-100752

BACKGROUND

Glomuvenous malformations (GVMs) are cutaneous venous lesions characterized by the presence of smooth muscle-like glomus cells in the walls of distended vacular lumens. Complete loss of function of the Glomulin gene, which resides within chromosome 1p21-22, results in GVMs. Glomulin, also designated FKBP-associated protein (FAP), exists as two isoforms FAP48 and FAP68. Glomulin is crucial for normal development of the vascular system and plays a role in the differentiation of vascular smooth-muscle cells and vascular morphogenesis. Glomulin is a ubiquitously expressed membrane anchoring protein.

REFERENCES

1. Grisendi, S., et al. 2001. Ligand-regulated binding of FAP68 to the hepatocyte growth factor receptor. *J. Biol. Chem.* 276: 46632-46638.
2. Neye, H., et al. 2001. Mutation of FKBP associated protein 48 (FAP48) at proline 219 disrupts the interaction with FKBP12 and FKBP52. *Regul. Pept.* 97: 147-52.
3. Brouillard, P., et al. 2002. Mutations in a novel factor, Glomulin, are responsible for glomuvenous malformations ("glomangiomas"). *Am. J. Hum. Genet.* 70: 866-874.
4. Krummrei, U., et al. 2003. The FKBP-associated protein FAP48 is an antiproliferative molecule and a player in T cell activation that increases IL-2 synthesis. *Proc. Natl. Acad. Sci. USA* 100: 2444-2449.
5. Boon, L.M., et al. 2004. Glomuvenous malformation (glomangioma) and venous malformation: distinct clinicopathologic and genetic entities. *Arch. Dermatol.* 140: 971-976.
6. McIntyre, B.A., et al. 2004. Glomulin is predominantly expressed in vascular smooth muscle cells in the embryonic and adult mouse. *Gene. Expr. Patterns* 4: 351-358.
7. Brouillard, P., et al. 2005. Four common Glomulin mutations cause two thirds of glomuvenous malformations ("familial glomangiomas"): evidence for a founder effect. *J. Med. Genet.* 42: E13.

CHROMOSOMAL LOCATION

Genetic locus: GLMN (human) mapping to 1p22.1.

SOURCE

Glomulin (YY-Z) is a mouse monoclonal antibody raised against recombinant Glomulin of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Glomulin (YY-Z) is recommended for detection of Glomulin of human origin by Western Blotting (starting dilution 1:200, 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).

Suitable for use as control antibody for Glomulin siRNA (h): sc-45356, Glomulin shRNA Plasmid (h): sc-45356-SH and Glomulin shRNA (h) Lentiviral Particles: sc-45356-V.

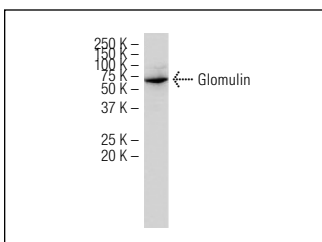
Molecular Weight of Glomulin: 68 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

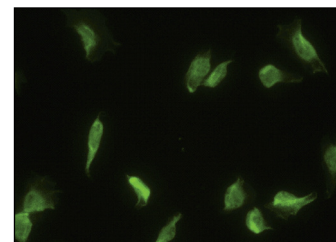
RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 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



Glomulin (YY-Z): sc-100752. Western blot analysis of Glomulin expression in HL-60 whole cell lysate.



Glomulin (YY-Z): sc-100752. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yu, H.N., et al. 2015. Neuregulin 1 controls glutamate uptake by up-regulating excitatory amino acid carrier 1 (EAAC1). *J. Biol. Chem.* 290: 20233-20244.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.