SANTA CRUZ BIOTECHNOLOGY, INC.

Glomulin (K-20)-R: sc-34298-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: 147-152.
3. Brouillard, P., et al. 2002. Mutations in a novel factor, Glomulin, are responsible for glomuvenous malformations. 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 IL2 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; (mouse) mapping to 5 F.

SOURCE

Glomulin (K-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Glomulin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34298 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Glomulin (K-20)-R is recommended for detection of Glomulin isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Glomulin (K-20)-R is also recommended for detection of Glomulin isoform 1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Glomulin siRNA (h): sc-45356, Glomulin siRNA (m): sc-45357, Glomulin shRNA Plasmid (h): sc-45356-SH, Glomulin shRNA Plasmid (m): sc-45357-SH, Glomulin shRNA (h) Lentiviral Particles: sc-45356-V and Glomulin shRNA (m) Lentiviral Particles: sc-45357-V.

Molecular Weight of Glomulin: 68 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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