

# Vitrin (G-14): sc-137900

## BACKGROUND

Vitrin (VIT) is a 678 amino acid secreted protein that exists as 4 alternatively spliced isoforms, and contains 2 VWFA domains and one LCCL domain. While it binds dermatan sulfate and chondroitin sulfate, Vitrin promotes matrix assembly and cell adhesiveness. The gene that encodes Vitrin consists of more than 118,000 bases and maps to human chromosome 2p22.2. Consisting of 237 million bases, chromosome 2 encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

## REFERENCES

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- Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. *J. Clin. Invest.* 102: 1041-1044.
- Mayne, R., et al. 1999. VIT-1: the second member of a new branch of the von Willebrand factor A domain superfamily. *Biochem. Soc. Trans.* 27: 832-835.
- Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
- Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. *Cytogenet. Cell Genet.* 92: 204-208.
- Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. *Nat. Genet.* 31: 79-83.

## CHROMOSOMAL LOCATION

Genetic locus: VIT (human) mapping to 2p22.2; Vit (mouse) mapping to 17 E3.

## SOURCE

Vitrin (G-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of Vitrin of human origin.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137900 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Vitrin (G-14) is recommended for detection of Vitrin isoforms 1-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Vitrin (G-14) is also recommended for detection of Vitrin isoforms 1-3 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Vitrin siRNA (h): sc-95025, Vitrin siRNA (m): sc-155111, Vitrin shRNA Plasmid (h): sc-95025-SH, Vitrin shRNA Plasmid (m): sc-155111-SH, Vitrin shRNA (h) Lentiviral Particles: sc-95025-V and Vitrin shRNA (m) Lentiviral Particles: sc-155111-V.

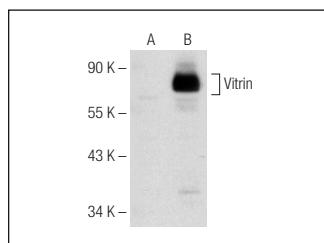
Molecular Weight of Vitrin isoforms 1/2/3/4: 74/72/22/76 kDa.

Positive Controls: Vitrin (m): 293T Lysate: sc-124571.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Vitrin (G-14): sc-137900. Western blot analysis of Vitrin expression in non-transfected: sc-117752 (A) and mouse Vitrin transfected: sc-124571 (B) 293T whole cell lysates.

## RESEARCH USE

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