

Vigilin (T-15): sc-51017

BACKGROUND

Vigilin, a K homology (KH) protein, is found in the nucleus and cytoplasm of all eukaryotic species. Vigilin contains a unique structure of 14 to 15 consecutively arranged KH domains, which function to mediate RNA-protein binding. Expression of the gene encoding Vigilin, which maps to chromosome 2q37, is essential for cell viability. Vigilin is active in heterochromatin formation and cytoplasmic mRNA decay, and can be a useful marker for translational activity. The 80S ribosome co-localizes with Vigilin, which interacts with the ribosomal complex through its C-terminal domain, suggesting its role in the link between tRNA-export and the channeled tRNA-cycle on ribosomes. Intracellular cholesterol upregulates Vigilin expression, and the protein specifically binds to high density lipoprotein molecules to function in the removal of excess cellular cholesterol.

REFERENCES

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- Xia, Y.R., Klisak, I., Sparkes, R.S., Oram, J. and Lusis, A.J. 1993. Localization of the gene for high-density lipoprotein binding protein (HDLBP) to human chromosome 2q37. *Genomics* 16: 524-525.
- Plenz, G., Kügler, S., Schnittger, S., Rieder, H., Fonatsch, C. and Müller, P.K. 1994. The human Vigilin gene: identification, chromosomal localization and expression pattern. *Hum. Genet.* 93: 575-582.
- Kügler, S., Plenz, G. and Müller, P.K. 1996. Two additional 5' exons in the human Vigilin gene distinguish it from the chicken gene and provide the structural basis for differential routes of gene expression. *Eur. J. Biochem.* 238: 410-417.

CHROMOSOMAL LOCATION

Genetic locus: HDLBP (human) mapping to 2q37; Hdlbp (mouse) mapping to 1 D.

SOURCE

Vigilin (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Vigilin 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-51017 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Vigilin (T-15) is recommended for detection of Vigilin of mouse, rat and 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).

Vigilin (T-15) is also recommended for detection of Vigilin in additional species, including equine, canine, bovine, porcine and avian.

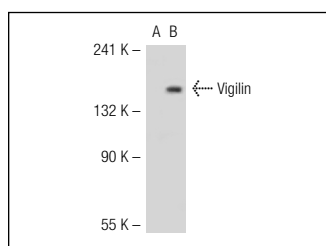
Suitable for use as control antibody for Vigilin siRNA (h): sc-61788, Vigilin siRNA (m): sc-61789, Vigilin shRNA Plasmid (h): sc-61788-SH, Vigilin shRNA Plasmid (m): sc-61789-SH, Vigilin shRNA (h) Lentiviral Particles: sc-61788-V and Vigilin shRNA (m) Lentiviral Particles: sc-61789-V.

Molecular Weight of Vigilin: 155 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Vigilin (T-15): sc-51017. Western blot analysis of Vigilin expression in non-transfected: sc-117752 (A) and mouse Vigilin transfected: sc-124561 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
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Try **Vigilin (H-3): sc-271523**, our highly recommended monoclonal alternative to Vigilin (T-15).