ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Zinc Transporter - 6 (LIV-1; S39A6) Antibodies

Cat # ZIP61-P	Mouse ZIP6 Control/Blocking Peptide	**SIZE**: 100 µg
Cat # ZIP61-A	Rabbit anti-Mouse ZIP6 IgG (affinity pure)	**SIZE**: 100 µg

Zinc is an essential nutrient for all organisms because of the many important roles this metal plays. Movement of zinc into and out of cells and subcellular organelles is mediated by zinc transporter proteins. In many organisms, zinc uptake is mediated by members of the ZIP family of metal ion transporters. In mammals, the Zip1, Zip2, ZIP4, Zip4, ZIP6, LIV-1 (Zip6), KE4 (Zip7), and BIGM103 (Zip8) proteins have been implicated in zinc uptake in a variety of cell and tissue types.

The **ZIP6** gene **(*LIV-1*)** was isolated in an effort to identify the estrogen-regulated genes in a human breast cancer cell line, ZR-75-1. The mRNA expression of *ZIP6* was upregulated about 4-fold in the presence of 10^{-8} M estradiol in culture medium. ZIP6 protein also contains a ubiquitin binding site.

ZIP6 rat: 741aa; human: 749aa; mouse: 765aa – 86KDa; human Chromosome: 18q12.2. Highly expressed in the brain and testis. In the brain strongly expressed in the CA1 and CA3 regions, Purkinje cells in cerebellum and dentate gyrus in hippocampus. In testis found in spermatids or mature sperms in the central areas of seminiferous tubules.

Source of Antigen, Antibodies

Antigen	18- aa peptide of Mouse ZIP6 (Protein accession # Q8C145; ref. 1); designated as ZIP61-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus, Extracellular
Antibody host/type	Rabbit, Polyclonal IgG (Cat # ZIP61-A), purified over antigen-Agarose
Secondary Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune rabbit IgG (Cat # 20009-1) to be used as –ve control for ELISA, WB, IHC etc.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage
Short-term: unopened, undiluted vials for less than a week at 4oC.
Long-term: at –20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20°C or below.
Shipping: 4°C for solutions and room temp for powder.

Recommended Usage

Western Blotting: 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

ELISA: 1:100K; using 50-100 ng control peptide/well.

Histochemistry & Immunofluorescence: Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

Specificity & Cross-reactivity

Mouse ZIP61-P peptide sequence has no homologies to rat and human ZIP6 protein sequences. We recommend using Cat # ZIP62 for detecting human ZIP6 protein. Antibody cross-reactivity in various species is not known. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity

General References:

1) MGC Project Team, (2004): Genome Res. 14:2121-2127.

List of related items, data sheets, and publications, using ADI antibodies is posted on the web site

*This product is for in vitro research use only.

Related material available from ADI

- Antibodies to human, mouse and rat ZIP1 - 7

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