

Product Specification Sheet

**Zinc Transporter 6 (LIV-1; SLC39A6) Antibodies**

<b>Cat # ZIP62-P</b>	Human ZIP6 Control/Blocking Peptide	<b>SIZE:</b> 100 µg
<b>Cat # ZIP62-A</b>	Rabbit anti-Human ZIP6 IgG (affinity pure)	<b>SIZE:</b> 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<sup>-8</sup> M estradiol in culture medium. ZIP6 protein also contains a ubiquitin binding site.

**ZIP6** rat: 741aa; mouse: 765aa; human: 749aa – 86kDa; Chromosome: 18A2. 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**

<b>Antigen</b>	15- aa peptide of Human ZIP6 (Protein accession # <a href="#">Q13433</a> ; ref. 1); designated as ZIP62-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus, Extracellular
<b>Antibody host/type</b>	Rabbit, Polyclonal IgG (Cat # ZIP62-A), purified over antigen-Agarose
<b>Secondary Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>Negative Control Ab</b>	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 µg/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

100 µg/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 4°C.

**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**

Human ZIP62-P peptide sequence has no significant homology to rat or mouse ZIP6 proteins. We recommend using Cat # ZIP61 for detecting mouse 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 µg control peptide per 1 µg 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

ZIP62-A 71205A

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