

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse USP2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant human USP2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse USP2 isoform 2 Lys47-Met396 Accession # NP_932759
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

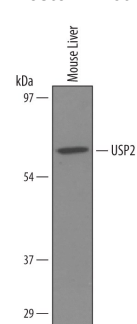
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	0.3-25 µg/mL	See Below
<b>Immunohistochemistry</b>	3-15 µg/mL	See Below

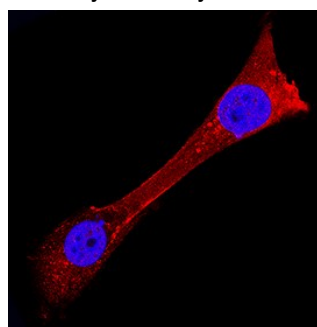
## DATA

### Western Blot



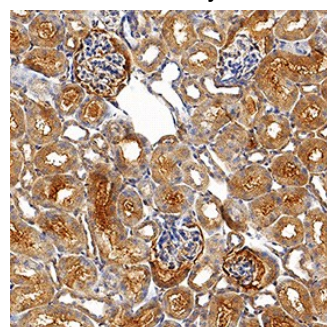
**Detection of Mouse USP2 by Western Blot.** Western blot shows lysates of mouse liver tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse USP2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5804) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for USP2 at approximately 70 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

### Immunocytochemistry



**USP2 in NIH-3T3 Mouse Cell Line.** USP2 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using Goat Anti-Mouse USP2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5804) at 0.3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**USP2 in Mouse Kidney.** USP2 was detected in perfusion fixed frozen sections of mouse kidney using Goat Anti-Mouse USP2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5804) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in glandular epithelial cells. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

USP2 (Ubiquitin-specific-processing protease 2; also Ubiquitin carboxy-terminal hydrolase 2) is a cytosolic member of the peptidase C19 family of enzymes. It is widely expressed and serves to deubiquitinate select target substrates. USP2 effects are determined by its targets. In cells where it increases Mdm2, p53 is degraded and apoptosis is blocked. In cells where it increases Itch concentration, Flip activity is interrupted and apoptosis is promoted. USP2 is reported to form homo-oligomers. There are at least two isoform variants. Each is approximately 70 kDa in size, with one showing a 266 aa, and another a 272 aa substitution for aa 1-49. Over aa 47-396, mouse USP2 shares 96% and 99% aa identity with human and rat USP2, respectively.