

**STEAP3 Antibody**  
**Catalog # ASC10574****Specification****STEAP3 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q658P3</a>
Other Accession	<a href="#">AAH95421</a> , <a href="#">127801437</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 55 kDa

Application Notes	<b>Observed: 51 kDa KDa</b> STEAP3 antibody can be used for detection of STEAP3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.
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**STEAP3 Antibody - Additional Information**Gene ID **55240****Target/Specificity**

STEAP3; This STEAP3 antibody does not cross-react with other STEAP proteins.

**Reconstitution & Storage**

STEAP3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

STEAP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**STEAP3 Antibody - Protein Information****Name** STEAP3**Synonyms** TSAP6**Function**

Integral membrane protein that functions as a NADPH-dependent ferric-chelate reductase, using NADPH from one side of the membrane to reduce a Fe(3+) chelate that is bound on the other side of the membrane (PubMed:<a href="http://www.uniprot.org/citations/26205815" target="\_blank">26205815</a>). Mediates sequential transmembrane electron transfer from NADPH to FAD and onto heme, and finally to the Fe(3+) chelate (By similarity). Can also reduce

Cu(2+) to Cu(1+) (By similarity). Mediates efficient transferrin-dependent iron uptake in erythroid cells (By similarity). May play a role downstream of p53/TP53 to interface apoptosis and cell cycle progression (By similarity). Indirectly involved in exosome secretion by facilitating the secretion of proteins such as TCTP (PubMed: [15319436](http://www.uniprot.org/citations/15319436), PubMed: [16651434](http://www.uniprot.org/citations/16651434)).

#### Cellular Location

Endosome membrane {ECO:0000250|UniProtKB:Q8CI59}; Multi-pass membrane protein.

Note=Localizes to vesicular- like structures at the plasma membrane and around the nucleus

#### Tissue Location

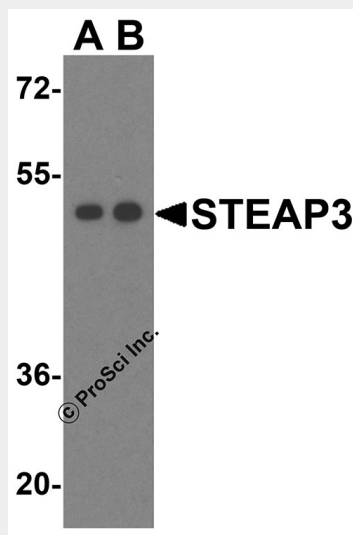
Expressed in adult bone marrow, placenta, liver, skeletal muscle and pancreas. Down-regulated in hepatocellular carcinoma.

### STEAP3 Antibody - Protocols

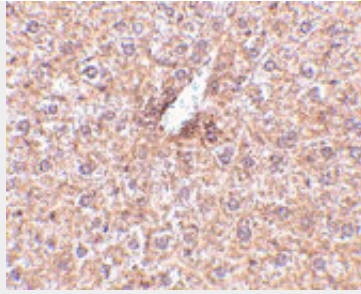
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

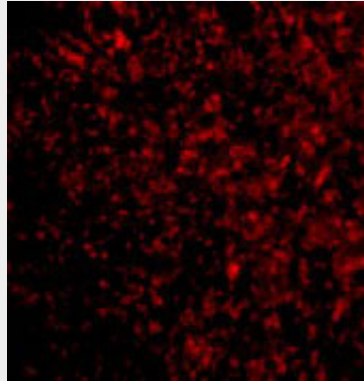
### STEAP3 Antibody - Images



Western blot analysis of STEAP3 in HeLa cell lysate with STEAP3 antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of STEAP3 in mouse liver tissue with STEAP3 antibody at 2.5 µg/mL.



Immunofluorescence of STEAP3 in Mouse Liver cells with STEAP3 antibody at 20 µg/mL.

### **STEAP3 Antibody - Background**

**STEAP3 Antibody:** The six-transmembrane epithelial antigen of prostate 3 (STEAP3) is a member of a family of metalloreductases identified as cell-surface antigens in prostate tissue. Similar to two other members of the STEAP family (STEAP 2 and STEAP4), STEAP3 promotes both iron and copper reduction. STEAP3 is highly expressed in hematopoietic tissues and colocalizes with the transferrin endosome. Overexpression of STEAP3 stimulates iron reduction; mice lacking STEAP3 are deficient in erythroid ferrireductase activity, suggesting that STEAP3 is an endosomal ferrireductase required for transferrin-dependent iron uptake in erythroid cells.

### **STEAP3 Antibody - References**

Ohgami RS, Campagna DR, Greer EL, et al. Identification of a ferrireductase required for efficient transferrin-dependent iron uptake in erythroid cells. *Nat. Genet.* 2005; 37:1264-9.  
Ohgami RS, Campagna DR, McDonald A, et al. The Steap proteins are metalloreductases. *Blood* 2006; 108:1388-94.  
Graham RM, Chua ACG, Herbison CE, et al. Liver iron transport. *World J. Gastroenterol.* 2007; 13:4725-36.