

**STEAP1 Antibody**  
**Catalog # ASC10571****Specification**

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**STEAP1 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q9UHE8</a>
Other Accession	<a href="#">EAL24166</a> , <a href="#">51094921</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	STEAP1 antibody can be used for detection of STEAP1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.

**STEAP1 Antibody - Additional Information**Gene ID **26872****Target/Specificity**

STEAP1; This STEAP1 antibody does not cross-react with other STEAP proteins.

**Reconstitution & Storage**

STEAP1 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**

STEAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**STEAP1 Antibody - Protein Information****Name** STEAP1**Synonyms** PRSS24, STEAP**Function**

Does not function as a metalloredutase due to the absence of binding sites for the electron-donating substrate NADPH. Promotes Fe(3+) reduction when fused to the NADPH-binding domain of STEAP4.

**Cellular Location**

Endosome membrane {ECO:0000250|UniProtKB:Q9CWR7}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

**Tissue Location**

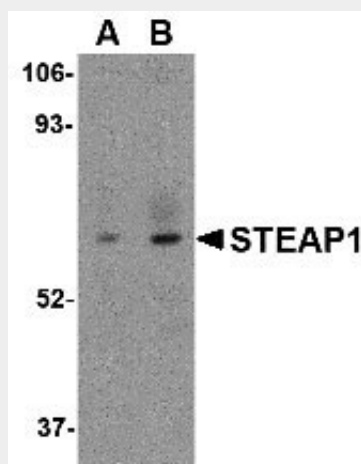
Ubiquitously expressed. Highly expressed in prostate tumors.

### STEAP1 Antibody - Protocols

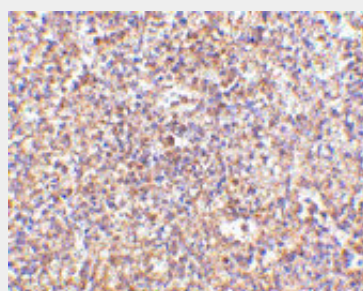
Provided below are standard protocols that you may find useful for product applications.

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

### STEAP1 Antibody - Images



Western blot analysis of STEAP1 in human spleen tissue lysate with STEAP1 antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of STEAP1 in human spleen tissue with STEAP1 antibody at 2.5  $\mu$ g/mL.

### STEAP1 Antibody - Background

**STEAP1 Antibody:** The six-transmembrane epithelial antigen of prostate 1 (STEAP1) was the first member of a family of metalloredutases identified as cell-surface antigens in prostate tissue. The normal function of STEAP is still uncertain; unlike other members of the STEAP family, STEAP1 does not promote iron or copper reduction or uptake and lacks the FNO-like reductase domain critical for activity. However, its expression is highly increased in multiple cancer cell lines, including prostate, bladder, colon, and ovarian cancers. Supporting this is evidence that STEAP1 peptides can be used

to stimulate CD8+ T cells from healthy donors, enabling them to recognize STEAP1-positive human tumor cells, suggesting that STEAP1 may a potential target for cancer immunotherapy. At least three isoforms of STEAP1 are known to exist.

### **STEAP1 Antibody - References**

Hubert RS, Vivanco I, Chen E, et al. STEAP: a prostate-specific cell-surface antigen highly expressed in human prostate tumors. Proc. Natl. Acad. Sci. USA1999; 96:14523-8.

Ohgami RS, Campagna DR, McDonald A, et al. The Steap proteins are metalloreductases. Blood2006; 108:1388-94.

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.

Alves PM, Faure O, Graff-Dubois S, et al. STEAP, a prostate tumor antigen, is a target of human CD8+ T cells. Cancer Immunol. Immunother.2006; 55:1515-23.