

**Goat Anti-STEAP4 / Dudulin4 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF2041a****Specification**

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**Goat Anti-STEAP4 / Dudulin4 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q687X5</a>
Other Accession	<a href="#">NP_078912</a> , <a href="#">79689</a> , <a href="#">117167 (mouse)</a>
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	51981

**Goat Anti-STEAP4 / Dudulin4 Antibody - Additional Information****Gene ID** 79689**Other Names**

Metalloreductase STEAP4, 1.16.1.-, Six-transmembrane epithelial antigen of prostate 4, SixTransMembrane protein of prostate 2, Tumor necrosis factor, alpha-induced protein 9, STEAP4, STAMP2, TNFAIP9

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-STEAP4 / Dudulin4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-STEAP4 / Dudulin4 Antibody - Protein Information****Name** STEAP4**Synonyms** STAMP2 {ECO:0000303|PubMed:15897894}, TN

### 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. Mediates sequential transmembrane electron transfer from NADPH to FAD and onto heme, and finally to the Fe(3+) chelate (PubMed:<a href="http://www.uniprot.org/citations/30337524" target="\_blank">30337524</a>). Can also reduce Cu(2+) to Cu(1+) (By similarity). Plays a role in systemic metabolic homeostasis, integrating inflammatory and metabolic responses (By similarity). Associated with obesity and insulin-resistance (PubMed:<a href="http://www.uniprot.org/citations/18381574" target="\_blank">18381574</a>, PubMed:<a href="http://www.uniprot.org/citations/18430367" target="\_blank">18430367</a>). Involved in inflammatory arthritis, through the regulation of inflammatory cytokines (PubMed:<a href="http://www.uniprot.org/citations/19660107" target="\_blank">19660107</a>). Inhibits anchorage- independent cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/19787193" target="\_blank">19787193</a>).

### Cellular Location

Cell membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein

### Tissue Location

Ubiquitous. Highly expressed in adipose tissue. Expressed in placenta, lung, heart and prostate. Detected at lower levels in liver, skeletal muscle, pancreas, testis and small intestine Highly expressed in joints of patients with rheumatoid arthritis and localized with CD68 cells, a marker for macrophages

## Goat Anti-STEAP4 / Dudulin4 Antibody - Protocols

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

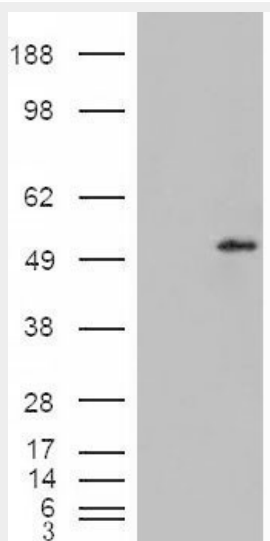
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Goat Anti-STEAP4 / Dudulin4 Antibody - Images



AF2041a (0.3 µg/ml) staining of Human Adipose lysate (35 µg protein in RIPA buffer). Primary

incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing Dudulin4 (RC216917) and probed with AF2041a (mock transfection in first lane), tested by Origene.

#### **Goat Anti-STEAP4 / Dudulin4 Antibody - References**

Genetic variability at the six transmembrane protein of prostate 2 locus and the metabolic syndrome: the data from an epidemiological study on the Insulin Resistance Syndrome (DESIR) study. Miot A, et al. J Clin Endocrinol Metab, 2010 Jun. PMID 20382686.

STEAP4, a gene associated with insulin sensitivity, is regulated by several adipokines in human adipocytes. Chen X, et al. Int J Mol Med, 2010 Mar. PMID 20127040.

STEAP4 regulates focal adhesion kinase activation and CpG motifs within STEAP4 promoter region are frequently methylated in DU145, human androgen-independent prostate cancer cells. Tamura T, et al. Int J Mol Med, 2009 Nov. PMID 19787193.

Interleukin-1beta is a positive regulator of TIARP/STAMP2 gene and protein expression in adipocytes in vitro. Kralisch S, et al. FEBS Lett, 2009 Apr 2. PMID 19289123.

Downregulation of STEAP4, a highly-expressed TNF-alpha-inducible gene in adipose tissue, is associated with obesity in humans. Zhang CM, et al. Acta Pharmacol Sin, 2008 May. PMID 18430367.