

# STAMP2 (C-12): sc-104671

## BACKGROUND

STAMP2 (SixTransMembrane protein of prostate 2), also known as STEAP4 (STEAP family member 4), TIARP or TNFAIP9, is a 459 amino acid multi-pass membrane protein that localizes to the Golgi apparatus and contains one ferric oxidoreductase domain. Expressed ubiquitously with highest expression in lung, prostate, placenta and heart, STAMP2 functions as a metalloredutase that uses FAD as a cofactor to reduce both Fe<sup>3+</sup> and Cu<sup>2+</sup> to Fe<sup>2+</sup> and Cu<sup>1+</sup>, respectively. Multiple isoforms of STAMP2 exist due to alternative splicing events. The gene encoding STAMP2 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

## REFERENCES

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- Zhang, C.M., Chi, X., Wang, B., Zhang, M., Ni, Y.H., Chen, R.H., Li, X.N. and Guo, X.R. 2008. Downregulation of STEAP4, a highly-expressed TNF- $\alpha$ -inducible gene in adipose tissue, is associated with obesity in humans. *Acta Pharmacol. Sin.* 29: 587-592.

## CHROMOSOMAL LOCATION

Genetic locus: STEAP4 (human) mapping to 7q21.12.

## SOURCE

STAMP2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of STAMP2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104671 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

STAMP2 (C-12) is recommended for detection of STAMP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other STEAP family members.

Suitable for use as control antibody for STAMP2 siRNA (h): sc-89820, STAMP2 shRNA Plasmid (h): sc-89820-SH and STAMP2 shRNA (h) Lentiviral Particles: sc-89820-V.

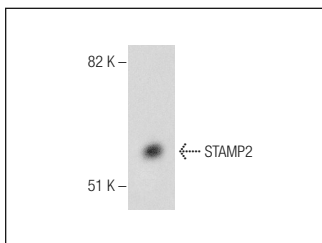
Molecular Weight of STAMP2: 52 kDa.

Positive Controls: human adipose tissue extract: sc-363750.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



STAMP2 (C-12): sc-104671. Western blot analysis of STAMP2 expression in human adipose tissue extract.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.