SANTA CRUZ BIOTECHNOLOGY, INC.

STAMP2 (L-12): sc-104672

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The Power to Question

BACKGROUND

STAMP2 (6 transmembrane 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 metalloreductase that uses FAD as a cofactor to reduce both Fe^{3+} and Cu^{2+} to Fe^{2+} and Cu^{1+}, 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.

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CHROMOSOMAL LOCATION

Genetic locus: Steap4 (mouse) mapping to 5 A1.

SOURCE

STAMP2 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of STAMP2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104672 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STAMP2 (L-12) is recommended for detection of STAMP2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

STAMP2 (L-12) is also recommended for detection of STAMP2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for STAMP2 siRNA (m): sc-106574, STAMP2 shRNA Plasmid (m): sc-106574-SH and STAMP2 shRNA (m) Lentiviral Particles: sc-106574-V.

Molecular Weight of STAMP2: 52 kDa.

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) 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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.