

STEAP (N-15): sc-10260

BACKGROUND

Six-transmembrane epithelial antigen of the prostate (STEAP) is structurally similar to a channel or transport protein. STEAP protein contains six potential membrane-spanning regions with hydrophilic amino- and carboxyl-terminal domains. STEAP protein is present in human prostate tissue with elevated levels in cancer cell lines, including prostate, bladder, colon, ovarian, and Ewing sarcoma. Cell-cell junctions of the secretory epithelium show concentrated levels of STEAP protein. Mouse STEAP is 80% homologous to human STEAP at both the nucleotide and amino acid levels. The human STEAP gene maps to chromosome 7q21 and encodes a 339 amino acid protein.

REFERENCES

1. Hubert, R.S., et al. 1999. STEAP: a prostate-specific cell-surface antigen highly expressed in human prostate tumors. *Proc. Natl. Acad. Sci. USA* 96: 14523-14528.
2. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604415. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: STEAP1 (human) mapping to 7q21.13, STEAP1B (human) mapping to 7p15.3.

SOURCE

STEAP (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of STEAP of human 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-10260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

STEAP (N-15) is recommended for detection of STEAP and MGC87042 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

STEAP (N-15) is also recommended for detection of STEAP and MGC87042 in additional species, including equine, bovine and porcine.

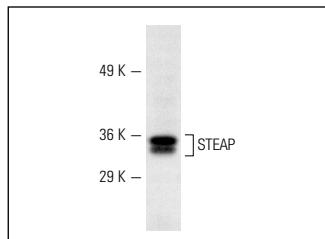
Molecular Weight of STEAP: 36 kDa.

Positive Controls: LNCaP cell lysate: sc-2231 or A-431 whole cell lysate: sc-2201.

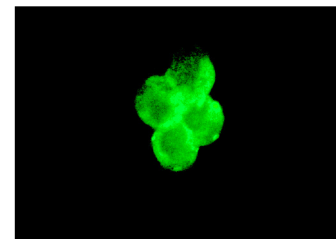
RECOMMENDED SECONDARY REAGENTS

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



STEAP (N-15): sc-10260. Western blot analysis of STEAP expression in LNCaP whole cell lysate.



STEAP (N-15): sc-10260. Immunofluorescence staining of methanol-fixed LNCaP cells showing membrane staining.

SELECT PRODUCT CITATIONS

1. Alves, P.M., et al. 2006. STEAP, a prostate tumor antigen, is a target of human CD8+ T cells. *Cancer Immunol. Immunother.* 55: 1515-1523.

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.

MONOS
Satisfaction
Guaranteed

Try **STEAP (B-4): sc-271872** or **STEAP (H-6): sc-515351**, our highly recommended monoclonal alternatives to STEAP (N-15).