

LACTB (S-14): sc-160480

BACKGROUND

Penicillin refers to any member of β -lactam antibiotics group. These agents are identified by a β -lactam ring within their molecular structure. As the most widely used group of antibiotics available, β -lactam are used for the treatment of bacterial infections usually caused by gram-positive organisms. β -lactam antibiotics are bactericidal, functioning to inhibit the synthesis of the peptidoglycan layer of bacterial cell walls. Bacterial penicillin-binding proteins and β -lactamases constitute a large family of serine proteases that perform essential functions in the synthesis and maintenance of peptidoglycan cell wall. Notably, β -lactamases cleave β -lactam, therefore providing the bacteria with resistance to the antibiotic. Homologues of β -lactamases occur in many species, including human, rat, cow, rabbit, pig, *xenopus*, zebrafish and *C. elegans*. The human homologues, LACTB and LACTB2, are active-site-serine enzymes thought to be involved in metabolism.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LACTB (human) mapping to 15q22.2; Lactb (mouse) mapping to 9 C.

RESEARCH USE

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

SOURCE

LACTB (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LACTB of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-160480 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LACTB (S-14) is recommended for detection of LACTB of mouse, rat and human 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 LACTB2.

LACTB (S-14) is also recommended for detection of LACTB in additional species, including equine and porcine.

Suitable for use as control antibody for LACTB siRNA (h): sc-89970, LACTB siRNA (m): sc-146632, LACTB shRNA Plasmid (h): sc-89970-SH, LACTB shRNA Plasmid (m): sc-146632-SH, LACTB shRNA (h) Lentiviral Particles: sc-89970-V and LACTB shRNA (m) Lentiviral Particles: sc-146632-V.

Molecular Weight of LACTB: 61/41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

PROTOCOLS

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