SANTA CRUZ BIOTECHNOLOGY, INC.

β-Gal (m): 293T Lysate: sc-120387

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The human β-galactosidase gene, known as the LacZ gene, maps to chromosome 3p21.33 and encodes a 677 amino acid protein with an optimum functional pH range of 6 to 8. Catalytically active β-galactosidases (β-Gal) is a tetramer of four identical subunits, each with an active site, which can independently catalyze the cleavage of terminal galactose. Monovalent cations have a stimulatory effect on the enzymatic reaction, which likely involves a galactosyl-enzyme complex intermediate. β-Gals are widespread in animals, microorganisms and plants. The LacZ gene is widely used as a reporter gene with a variety of colored or fluorescent compounds capable of being produced from appropriate substrates, such as Xgal, which produces a blue color. For this reason, LacZ is incorporated into numerous plasmid vectors as a marker.

REFERENCES

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6. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 230500. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: Glb1 (mouse) mapping to 9 F3.

PRODUCT

β-Gal (m): 293T Lysate represents a lysate of mouse β-Gal transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

β-Gal (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive β-Gal antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.