SANTA CRUZ BIOTECHNOLOGY, INC.

SOD-1 (1-154): sc-4347 WB



BACKGROUND

Cu-Zn superoxide dsmutase-1 (SOD-1) is a well characterized cytosolic scavenger of oxygen free radicals that requires copper and zinc binding to potentiate its enzymatic activity. Enzymatically, SOD-1 facilitates the dismutation of oxygen radicals to hydrogen peroxide and catalyzes prooxidant reactions, which include the peroxidase activity and hydroxyl radical generating activity. SOD-1 is ubiquitously expressed in somatic cells and functions as a homodimer. Defects in the gene encoding SOD-1 have been implicated in the progression of neurological diseases, including amyotrophic lateral sclerosis (ALS), a neurodegenerative disease characterized by the loss of spinal motor neurons, Down Syndrome and Alzheimer's Disease. In familial ALS, several mutations in SOD-1 predominate, which result in the loss of zinc binding and the loss of scavenging activity of SOD-1 and correlate with an increase in neurotoxicity and motor neuron death.

REFERENCES

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SOURCE

SOD-1 (1-154) is expressed in *E. coli* as a 44 kDa tagged fusion protein corresponding to amino acids 1-154 representing full length SOD-1 of human origin.

PRODUCT

SOD-1 (1-154) is purified from bacterial lysates (>98%) by column chromaptography; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

SOD-1 (1-154) is suitable as a Western blotting control for sc-8636, sc-8637, sc-1407 and sc-17767.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

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