SANTA CRUZ BIOTECHNOLOGY, INC.

PME-1: sc-4309

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Protein phosphatase methylesterase-1 (PME-1) catalyzes the demethylation and inactivation of protein phosphatase (PP2A), which is a multimeric phosphoserine/ threonine protein phosphatase associated with growth inhibition and cell cycle arrest. Carboxymethylation and demethylation is a covalent modifcation that regulates the catalytic activity of certain proteins in eukaryotes. Electrostatic interactions that occur at residues or metals in or near the active site can influence the specificity of carboxymethylation and demethylation. PME-1 can demethylate PP2A catalytic subunit in vitro and okadaic acid treatment is capable of inhibiting this reaction. PME-1 is conserved from yeast to human and contains a motif found in lipases having a catalytic triad-activated serine as their active site nucleophile.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPME1 (human) mapping to 11q13.4; Ppme1 (mouse) mapping to 7 F1.

SOURCE

PME-1 is expressed in *E. coli* as a 44 kDa protein corresponding to amino acids 1-386 representing full length PME-1 of human origin.

STORAGE

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

PRODUCT

PME-1 is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 µg.

APPLICATIONS

PME-1 is an enzymatically active methylesterase and is suitable as a Western blotting control for sc-17225 and sc-20086.

RESEARCH USE

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