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Protionamide

National Cancer Institute

Source

National Cancer Institute. *Protionamide*. NCI Thesaurus. Code C72605.

A thioamide derivative with antitubercular activity. Protionamide forms a covalent adduct with bacterial nicotinamide adenine dinucleotide (NAD), PTH-NAD, which competitively inhibits 2-trans-enoyl-ACP reductase (inhA), an enzyme essential for mycolic acid synthesis. This results in increased cell wall permeability and decreased resistance against cell injury eventually leading to cell lysis. Mycolic acids, long-chain fatty acids, are essential mycobacterial cell wall components and play a key role in resistance to cell injury and mycobacterial virulence.