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Corynebacterium diphtheriae

National Cancer Institute

Source

National Cancer Institute. *Corynebacterium diphtheriae*. NCI Thesaurus. Code C86312.

A species of aerobic or facultatively anaerobic, Gram-positive, coryneform, pleomorphic bacilli assigned to the phylum Actinobacteria. This species is nonmotile, non-spore forming, catalase positive, non-lipophilic, produces diphtheria toxin which inhibits elongation factor 2 (EF-2) thus preventing protein synthesis, forms polar granules, and is cultured in Loeffler's serum in a low iron environment or on tellurite agar. *C. diphtheriae* is commensal in the skin and nasopharynx, but toxin producing strains are pathogenic to humans causing diphtheria; both an antitoxin and vaccine are available for disease prevention.