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# Dinitrochlorobenzene

National Cancer Institute

## Source

National Cancer Institute. *Dinitrochlorobenzene*. NCI Thesaurus. Code C439.

An aromatic hydrocarbon composed of a benzene ring linked to two nitro groups and one chloride with potential use as an indicator for glutathione S-transferase (GST) activity, in the evaluation of T-cell immunocompetence, and as a treatment for warts. The chloride group of dinitrochlorobenzene (DNCB) is susceptible to nucleophilic substitution and is a target for GST-dependent glutathione conjugation in vitro; upon conjugation of the thiol group of glutathione to the DNCB substrate, there is an increase in the absorbance at 340 nm, which permits an indirect quantitation of GST activity in a sample. DNCB induces a type IV hypersensitivity reaction in most patients; therefore, exposure to DNCB can yield an indirect measurement of T-cell activity in a patient and immunocompromised patients may demonstrate decreased hypersensitivity toward DNCB. Following direct application to a wart, DNCB induces an allergic inflammatory response that may cure the viral infection that caused the wart.