**Product Information**

**Chemical Name**

*Synonym* 6-Phenylhexyl isothiocyanate, PHITC

**Formula** $C_{13}H_{17}NS$

**Formula Wt.** 219.35

**Melting Point**

Purity ≥98%

**Solubility** Soluble in organic solvents.

**Store Temp** -20°C

**Ship Temp** Ambient

**Description**

Isothiocyanates are compounds typically found in plants of the *Brassicaceae* family, including broccoli, cabbage, and radish. Isothiocyanates are best known for their antioxidative, anticancer chemotherapeutic, chemopreventive, anti-angiogenic, and antibiotic properties. In vitro, phenhexyl isothiocyanate (PHITC) increases caspase 3 activity and cleavage of poly(ADP)-ribose polymerase (PARP), inducing caspase-mediated apoptosis in cellular models. This compound decreases oxidation of carcinogen NNK and increases activity of NADPH:quinone oxidoreductase and glutathione S-transferase in vitro and in vivo. PHITC inhibits histone deacetylase (HDAC) activity, IL-6 receptor production, and VEGF expression; it also induces mitochondrial membrane depolarization and apoptosis in myeloma cells. In leukemia cells, PHITC inhibits expression of cyclin and increases expression of cyclin dependent kinase (CDK) inhibitors, inducing apoptosis and inhibiting growth of xenografts of these cells in animals.

**References**


**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.