

Introduction The thyroid gland is the site for the synthesis of the thyroid hormones. SP is well documented for its clinical importance in diabetes, hypertension, and cancer (Palaniswamy & Veluchamy, 2018), besides its antioxidant, immune-modulating, anti-microbial (Finamore et al., 2017), and radio-protective properties (Ibrahim, 2012, 2014). Hyperthyroidism induces a hyper-metabolic state characterised by reduced cholesterol levels, increased lipolysis, and gluconeogenesis (Cicatiello et al., 2018), while hypothyroidism is characterized by increased cholesterol levels. Spirulina platensis and Grape Seed Proanthocyanidin Extract ameliorate the hepatic impairment and Thyroid disruptors in Carbimazole-induced hypothyroidism in male rats. PAs have potent antioxidant and antitumor activity by scavenging superoxide and hydroxyl radicals, as well as preventing drug-induced liver and kidney .(toxicity (Engelbrecht et al., 2007