

STRUCTURAL AND BIOACTIVITY STUDIES ON
THE PROANTHOCYANIDIN FRACTION OF
THE FRUIT OF AEGLE MARMELOS, L.Corr

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We have previously reported the in vitro immunomodulation of the alternative pathway of complement activity by the proanthocyanidin fraction of the ripe fruit of *Aegle marmelos*¹. A subsequent field survey revealed that the unripe fruit is more widely used as an Ayurvedic drug than the ripe fruit. The proanthocyanidin fraction of the unripe fruit was shown to exhibit immunomodulatory effects on the classical pathway of complement activation, and on the phagocytic activity of polymorphonuclear leukocytes. Acid catalysed decomposition of this proanthocyanidin fraction gave pelargonidin. No cyanidin was present, in contrast to earlier reports². This result was consolidated by the fact that no catechin or epicatechin was produced when the proanthocyanidin was thiolysed with Toluene- α thiol. The thiolysis studies are being extended to confirm the structure of the monomer and to determine the molecular weight of the

polymer. A HPLC analysis on a μ -styrigel column of the acetylated proanthocyanidin of the ripe fruit shows that the major fraction of the polymer has a molecular weight of about 6000.

References:

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