Chapter 1

PURIFICATION AND CHARACTERIZATION OF CURCIN
EXTRACTION OF CURCIN FROM JATROPHA CURCAS SEEDS

JATROPHA SEEDS
↓
DECORTICATED
↓
DEFATTED
↓
SOAKED IN 5% ACETIC ACID
↓
HOMOGENIZED
↓
CENTRIFUGED
↓
AMMONIUM SULPHATE FRACTIONATION
(60% SATURATION)
↓
CENTRIFUGED
↓
PELLET COLLECTED, DIALYZED AND CONCENTRATED
↓
CRUDE CURCIN

Figure 1.1: Schematic representation of curcin extraction from Jatropha curcas seeds.
IMMUNIZATION PROTOCOL

FIRST INJECTION
(3 WEEK INTERVAL)
↓
SECOND INJECTION – FIRST TEST BLEED FOR ASSESSMENT OF SERUM TITERS (3 WEEK INTERVAL)
↓
THIRD INJECTION – SECOND TEST BLEED
(3 WEEK INTERVAL)
↓
FOURTH INJECTION – THIRD TEST BLEED
(3 WEEK INTERVAL)
↓
BOOSTER INJECTION
(1 WEEK INTERVAL)
↓
NO FURTHER INJECTION – FOURTH TEST BLEED

Figure 1.2: Protocol followed to immunize rabbits with toxoid (all injections were subcutaneous and at a dose of 1 mg/kg body weight)
Figure 1.3: Gel filtration chromatography of crude curcin
Figure 1.4: SDS PAGE of Crude Curcin and Purified Curcin

Figure 1.5: 2DE of Purified Curcin
Figure 1.6: Octerlouny’s double immune diffusion of curcin

Figure 1.7: DoT ELISA of Curcin

Figure 1.8: Western blotting of Curcin