

## Table: Screening tests for phytochemical groups

Phytochemicals (secondary metabolites)	Screening tests		Change of colour (solution / precipitation)
	Name of the reagents	Chemicals used	
Alkaloids	Mayer's reagent	Potassium-mercuric iodide solution	Cream colour
	Wagner's reagent	An aqueous solution of iodine and potassium iodide	Brown / reddish-brown precipitation
	Hager's reagent	Saturated picric acid solution	Yellow colour
	Dragendroff's reagent	Potassium bismuth iodide solution	Reddish- brown
Steroids		Chloroform and concentrated H <sub>2</sub> SO <sub>4</sub>	Chloroform layer turns red color & sulphuric acid layer showed yellow with green fluorescence
Triterpenoids		Chloroform, acetic anhydride & Concentrated sulphuric acid	Dry crude <b>plant extract</b> (5 mg) is dissolved in chloroform (2 mL) and then acetic anhydride (1 mL) is added to it. Concentrated sulphuric acid (1 mL) is added to the solution. Formation of reddish violet colour shows the presence of <b>triterpenoids</b> .
Flavonoids	Shinoda Test.	Pieces of magnesium ribbon and concentrated HCl acid	Pink color
Phenolic compounds			
Tannins	Ferric chloride <b>test</b>	5% FeCl <sub>3</sub> solution	Greenish precipitation
Phenols	Liebermann's nitroso reaction	NaNO <sub>2</sub> and concentrated H <sub>2</sub> SO <sub>4</sub> ,	A deep green or blue colour turns to red on dilution with water