

For *Hyoscyami folium* (T2): 4.2 ml scopolamine hydrobromide solution is added to 3.8 ml hyoscyamine sulphate solution; 20 µl is used for TLC.

For *Stramonii folium* (T3): 4.2 ml scopolamine hydrobromide solution is added to 3.8 ml hyoscyamine sulphate solution; 20 µl is used for TLC.

Silica gel 60 F₂₅₄-precoated TLC plates (Merck, Darmstadt, Germany)

Adsorbent

► The principal alkaloids of the most common alkaloid drugs can be identified.

Aluminium oxide-precoated TLC plates (Merck, Darmstadt, Germany)

► More suitable for the separation of berberine, columbamine and jatrorrhizine.

Solvent system	Drug, alkaloids	Chromatography solvents
Toluene–ethyl acetate–diethylamine (70:20:10)	Screening system , suitable for the major alkaloids of most drugs	
Chloroform–diethylamine (90:10)	Chinae cortex; Cinchona alkaloids	
Acetone–light petroleum–diethylamine (20:70:10)	Gelsemii radix	
Cyclohexane–ethanol–diethylamine (80:10:10)	Aconiti tuber	
Cyclohexane–chloroform–diethylamine (50:40:10)		
Chloroform–acetone–diethylamine (50:40:10)	Harmalae semen	
Chloroform–methanol–ammonia 10% (80:40:15)		
Ethyl acetate–isopropanol–ammonia 25% (100:2:1)	Uncariae cortex	
Dioxane–ammonia 25% (90:10)	Adhatodae folium	
Ethyl acetate–cyclohexane–methanol–ammonia 25% (70:15:10:5)	Ephedrae herba	
Ethyl acetate–methanol–water (100:13.5:10)	Screening system , suitable e.g. for xanthine derivatives, Colchicum and Rauwolfia alkaloids	
Ethyl acetate–methanol (90:10)	Vincae herba	
Ethyl acetate–methanol (60:20)	Catharanthi folium	
Toluene–chloroform–ethanol (28.5:57:14.5)	Secale alkaloids Ephedrae herba	
n-Propanol–formic acid–water (90:1:9)	Berberidis cortex, Hydrastis rhizoma, Colombo radix, Chelidonii herba	
n-Butanol–ethyl acetate–formic acid–water (30:50:10:10)	Mahoniae radices cortex	