**Supplementary Table 1.** Target compounds, reagents used in histochemical tests, expected results and authors of the methodology

|  |  |  |  |
| --- | --- | --- | --- |
| Target compound | Reagent | Author | Expected Result |
| Lipids | Total lipids | Sudan III | Pearse (1985) | Orange to red |
| Total lipids (fats, oils, waxes, free fatty acids, phospholipids) | Sudan Black B | Johansen (1940) | Blue to black |
| Neutral (fats, oils and waxes) and acidic lipids(free fatty acids and phospholipids)- | Nile blue | Cain (1947) | Neutral lipids -pink to red; acidic lipids blue |
| Terpenoids | Essential oils  | Nadi reagent | David & Carde (1964) | Essential oils violet-blue; resin acids red |
| Steroids  | Antimony trichloride | Hardman & Sofowora (1972) | Red |
| Total proteins | Proteins | Acid fuchsin | Feder & O'Brien (1968) | Pink-red |
| Proteins | Naphthol blue black (Amido black 10B ) | Fisher (1968) | Blue-black |
| Polysaccharides | Starch | Lugol | Johansen (1940) |  |
| Pectins | Toluidin blue | O’Brien *et al.* (1964) | Pink to purple |
| Phenolic compounds | Lignin/tanins | hydrochloric phloroglucinol | Jensen (1962) | Red–violet |
| Polyphenols (lignin/ tannins) | Toluidin blue | O’Brien *et al.* (1964) | Blue to green |
| Phenolic compounds | autofluorescence of non-stained sections under UV light | Demarco (2017) | Light blue |
| Flavonoids | Aluminium trichloride under UV light | Guerin *et al.* (1971) | Yellow |

Cain AJ. 1947. The Use of Nile Blue in the Examination of Lipoids. *Journal of Cell Science* **88**(3): 383–392.

David R & Carde J. 1964. Coloration différentielle des inclusions lipidique et terpeniques des pseudophylles du Pin maritime au moyen du reactif Nadi. *Comptes Rendus Hebdomadaires Des Seances De L Academie Des Sciences* **258**: 1338–1340.

Demarco D. 2017. Histochemical analysis of plant secretory structures. In: Pellicciari C & Biggiogera M. (eds) *Histochemistry of Single Molecules*, pp 313–330. Springer, New York.

Feder N & O'brien TP. 1968. Plant microtechnique; some principles and new methods. *American Journal of Botany* **55**(1): 123–142. <https://doi.org/10.2307/2440500>

Fisher DB. 1968. Protein staining of ribboned epon sectiom for light microscopy. *Histochemie* **16**: 92–96. <https://doi.org/10.1007/BF00306214>

Guerin HP, Delaveau PG & Paris RR. 1971. Localizations Histochimiques. II: Procédés simples de localization de pigments flavoniques. Application à quelques Phanérogrames. *Bulletin de la Société Botanique de France* **118**(1–2): 29–36. <https://doi.org/10.1080/00378941.1971.10838874>

Hardman R & Sofowora EA. 1972. Antimony tricholoride as test reagents for steroids, especially diosgenin and yamogenin, in plant tissues. *Stain Technology* **47**: 205–208. doi: <https://doi.org/10.3109/10520297209116486>

Jensen WA. 1962. *Botanical Histochemistry: Principles and Practice*. W.H. Freeman and Co, San Francisco

Johansen DA. 1940. *Plant Microtechnique*. McGraw-Hill, New York.

O’Brien TP, Feder N & McCully ME. 1964. Polychromatic staining of plant cell walls by toluidine blue O. *Protoplasma* **59**: 368–373. <https://doi.org/10.1007/bf01248568>

Pearse AGE. 1985. *Histochemistry: Theoretical and Applied. Fourth edition*. Churchill Livingstone, Edinburgh