

**P-50****Mutagenicity Effect of *Centella Asiatica* In Aqueous Extract Via Ames Test**

Florinsiah binti Lorin<sup>a,b</sup>, Farida Zuraina Yusof<sup>a</sup>, Nor Fadilah Rajab<sup>b</sup>

<sup>a</sup>*Faculty of Applied Sciences, Universiti Teknologi MARA, 40450, Shah Alam, Selangor;* <sup>b</sup>*Toxicology Laboratory, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, Wilayah Persekutuan, Malaysia*

*Centella asiatica* L. or locally known as Pegaga nyonya is a weakly aromatic smelling herb that belongs to a genus of the plant family Apiaceae (Umbelliferae). It has been used widely in folk medicine for hundreds of years to treat a wide range of illness. In this study, the mutagenic potential of *C. asiatica* leaves and roots in aqueous extracts were determined using the Ames test. The method involved was pre-incubation on *Salmonella typhimurium* TA 98 and TA 100 bacterial strains in the presence and absence of metabolic activator S9 system. The extracts were evaluated using two-fold value of the number of revertant's colony in negative control plate as cut-off point, to determine the mutagenicity effects. The results showed that all aqueous extracts of the leaves and roots of *C. asiatica* were non mutagenic towards TA98 and TA100 strain with and without S9 metabolic activation for all concentration studied. In conclusion, *C. asiatica* leaves and roots aqueous extract were non mutagenic on both *S. typhimurium* strains and safe to be used as part of the traditional medicine.

**Keywords:** Ames assay, *Centella asiatica*, Mutagenicity effect, *Salmonella typhimurium*, TA98, TA100.

---