TECHNICAL DATA SHEET

Kadamba Iron Nanoparticles

Superior bio-absorptive ‘Kadamba Green-Iron Nanoparticles’

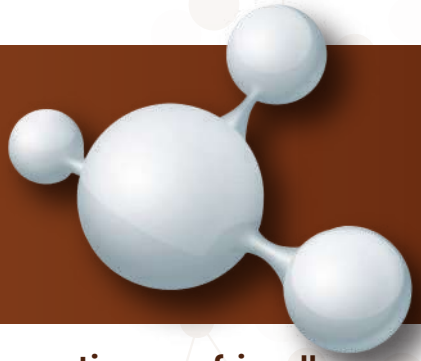
and its potential implications in iron-deficient therapeutic modality

Significance

Iron deficiency diseases affect individuals across all age groups due to increased iron requirements, poor dietary intake, defective/under absorption, or chronic blood loss. Among all iron deficiency–related conditions, iron deficiency anemia (IDA) is the most common and widespread nutritional disorder globally (affecting 1.62 billion people), this condition impairs oxygen transport to tissues, leading to fatigue, weakness, reduced cognitive performance, and decreased work capacity.

Kadamba’s Green-Iron based novel nano formulations has been prepared using profound principles of Indian traditional wisdom, ‘Ayurveda’ and modern Green-Nano technology might create a revolutionary milestone in addressing global challenges in this regard.

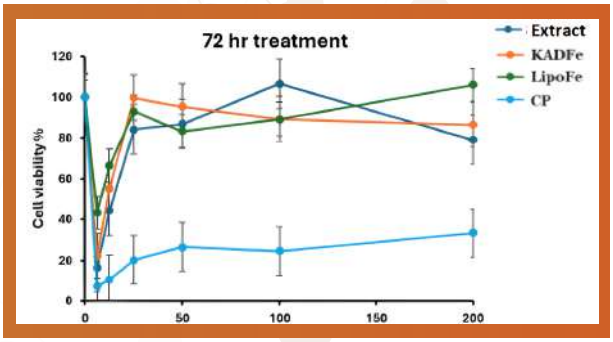
Kadamba **GREEN NANO IRON** is safe for Consumption



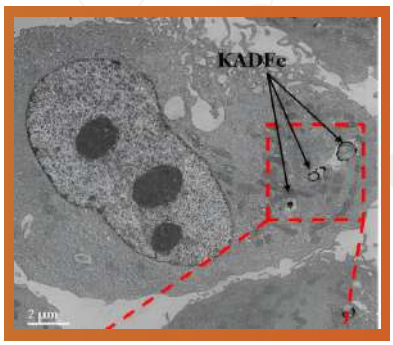
Kadamba’s phyto-capped green Iron formulations are non-reactive, ecofriendly and non-toxic (even at 2g/kg, in mice)

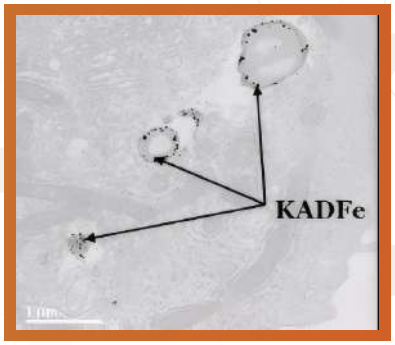
KADFe uptake into Caco-2 cells

Caco-2 cells

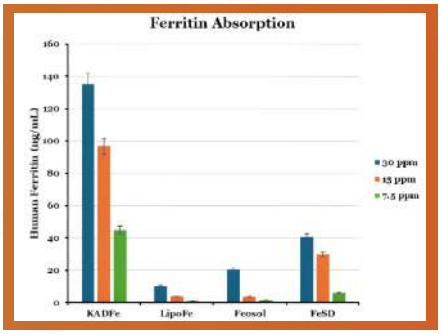


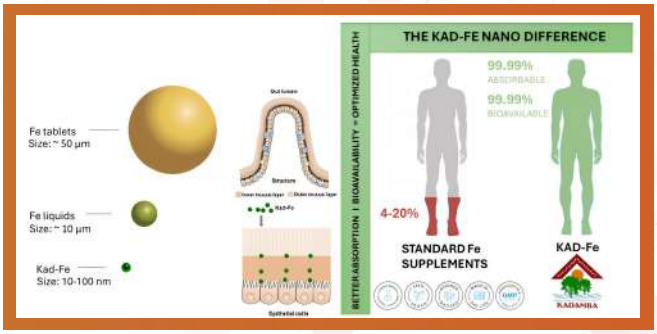
24 hr post treatment of KADFe





Comparative Absorption Profiling of Kadamba Green Nano Iron With Market Products





Unique features of Kadamba Green Nano Iron (KADFe):

- KADFe is already in Fe+2 state gives an added advantage in the absorption, since it is unique in size and phyto-encapsulation ensure faster and complete absorption of Iron in the body unlike many existing products in the market.
- KADFe show remarkable 90 % absorption whereas the iron supplements in the market show only 4-20 % absorption
- Kadamba Fe-NPs are nontoxic even at 2000 mg/Kg body weight, as per in vivo studies

References:

- Camaschella, C. Iron-Deficiency Anemia. New England Journal of Medicine 372, 1832–1843 (2015).
- Baumgartner, J. et al. Iron from nanostructured ferric phosphate: absorption and biodistribution in mice and bioavailability in iron deficient anemic women. Sci Rep 12, (2022).