Supplementary Information (SI) for Analytical Methods.
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ARTICLE

Digital image method based on smartphone assisted by hydrophobic natural deep eutectic solvent for Iron quantification in dietary supplements

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Supplementary Information

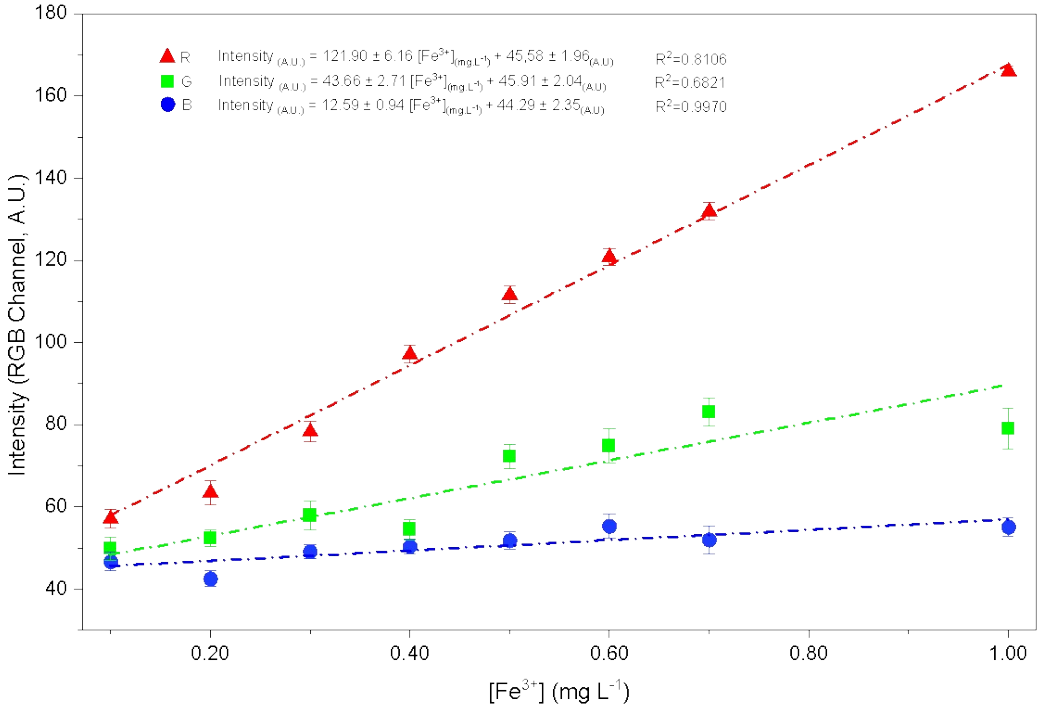

Figure S1. Analytical curves for the red (R), green (G), and blue (B) channels using the DIB method for quantification determination of Fe^{3+}. The red channel presented superior sensitivity and linearity compared with the green and blue channels.

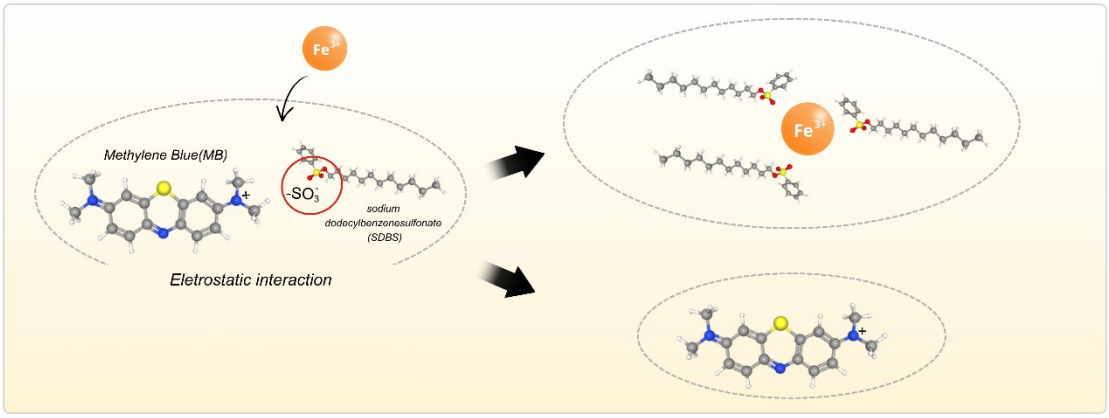

Figure S2. Schematic illustration of the supramolecular interactions involved in the SDBS-MB colorimetric reagent assisted by NADES. In the absence of iron, methylene blue (MB^+) is moved to aqueous medium, and the iron react with SDBS to form a neutral complex that moved to NADES phase.

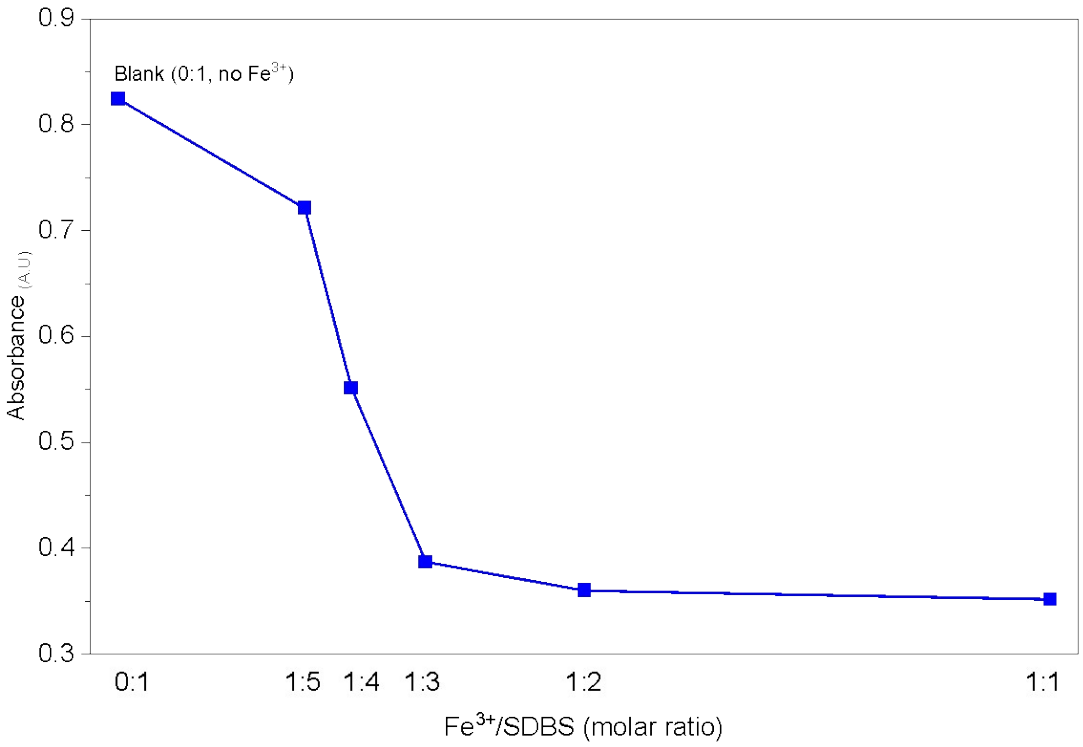

Figure S3. Stoichiometric study to find the molar ratio from the Iron: SDBS complex for UV-Vis spectrophotometry. The data lead to the Fe $(SDBS)_3$ product.

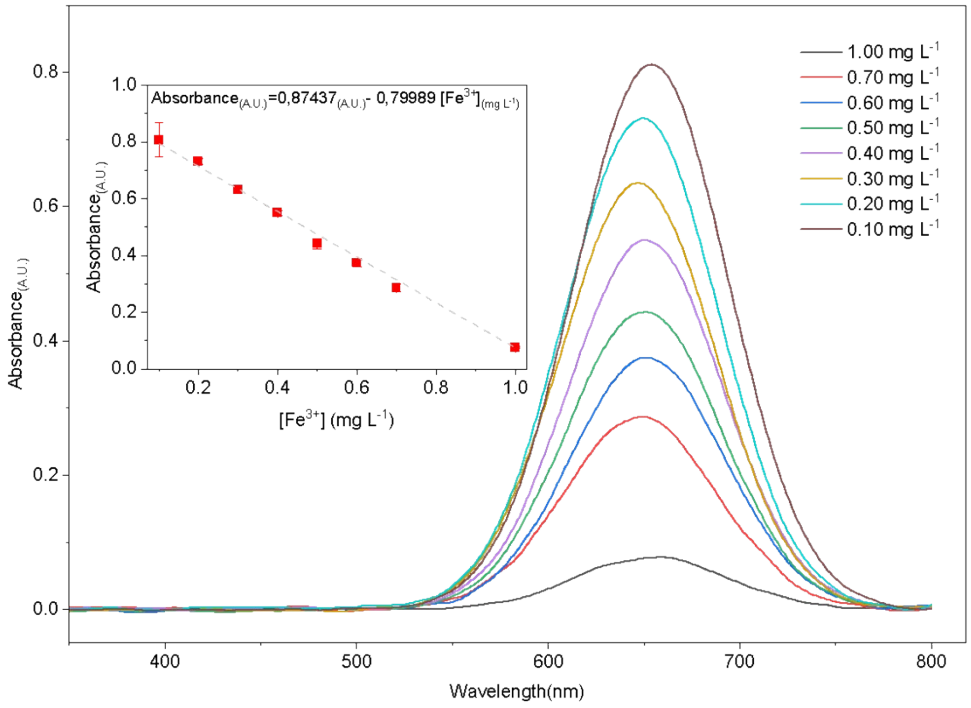

Figure S4. UV-Vis spectra and analytical curve obtained using UV-Vis spectrophotometric method and DCM-NADES/SDBS-MB system. The absorbance measured at 650 nm was used to construct the analytical curve.

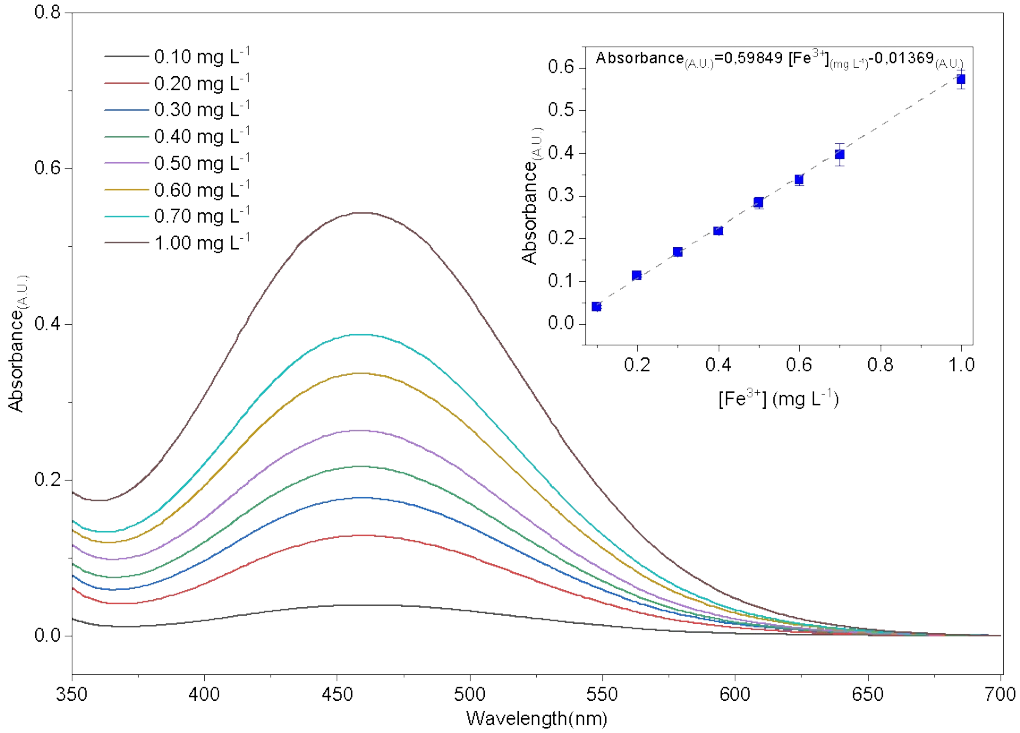

Figure S5. UV-Vis spectra and analytical curve obtained using UV-Vis spectrophotometric method and Fe^{3+}-thiocyanate complex. The absorbance measured at 460 nm was used to construct the analytical curve.