# Fluorescein Redirects a Ruthenium−Octaarginine Conjugate to the Nucleus

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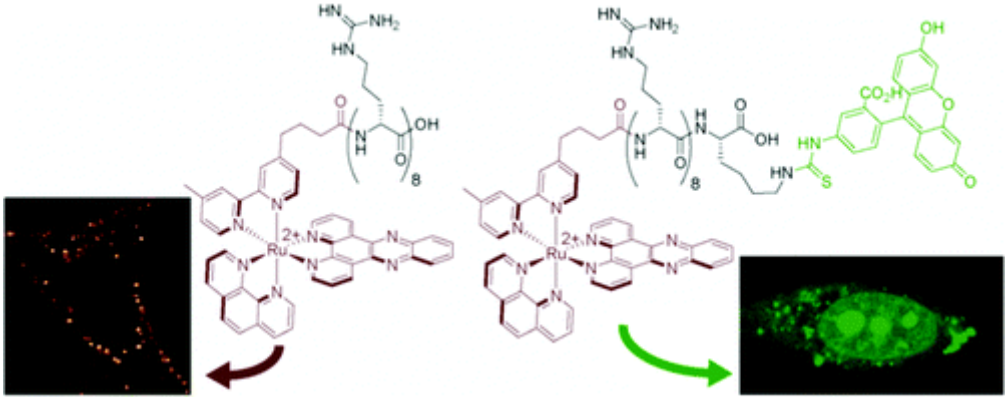
## Abstract



The cellular uptake and localization of a Ru−octaarginine conjugate with and without an appended fluorescein are compared. The inherent luminescence of the Ru(II) dipyridophenazine complex allows observation of its uptake without the addition of a fluorophore. Ru−octaarginine−fluorescein stains the cytosol, nuclei, and nucleoli of HeLa cells under conditions where the Ru−octaarginine conjugate without fluorescein shows only punctate cytoplasmic labeling. At higher concentrations, however, Ru−octaarginine without the fluorescein tag does exhibit cytoplasmic, nuclear, and nucleolar staining. Attaching fluorescein to Ru−octaarginine lowers the threshold concentration required for diffuse cytoplasmic labeling and nuclear entry. Hence, the localization of the fluorophore-bound peptide cannot serve as a proxy for that of the free peptide.

Full text (subscription may be required):
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