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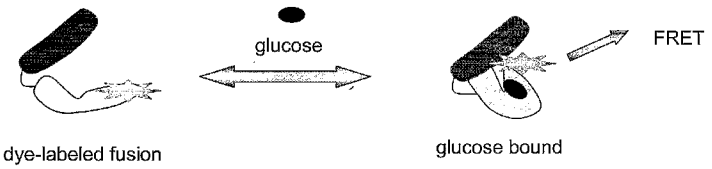
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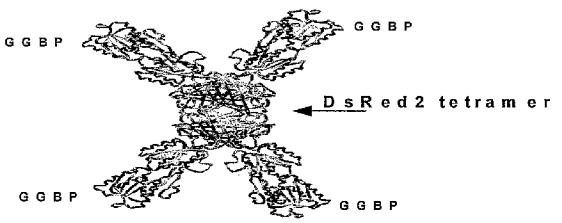
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[Continued on next page]

(54) Title: COMPOSITIONS AND METHODS FOR MEASURING ANALYTE CONCENTRATIONS





DsRed2(C119A)GGBP
tetrameric structure

(57) Abstract: The current invention relates to fusion proteins comprising at least one functional periplasmic binding protein, at least one labeling moiety and at least one fluorescent protein. In one embodiment, the periplasmic binding protein is a functional glucose-galactose binding protein (GGBP). The invention also relates to methods for quantifying an analyte, for example glucose, in a cell or tissue comprising administering a composition comprising a fluorescent periplasmic binding fusion protein portion to the cell or tissue, and measuring the fluorescence of the fluorescent periplasmic binding fusion protein.

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