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(54) Title: MODULAR AND GENERALIZABLE BIOSENSOR PLATFORM BASED ON DE NOVO DESIGNED PROTEIN SWITCHES

(57) Abstract: The disclosure provides cage proteins comprising a helical bundle, wherein the cage protein comprises a structural region and a latch region, wherein the latch region comprises one or more target binding polypeptide, wherein the cage protein further comprises a first reporter protein domain, wherein the first reporter protein domain undergoes a detectable change in reporting activity when bound to a second split reporter protein domain, and wherein the structural region interacts with the latch region to prevent solution access to the one or more target binding polypeptide.



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