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(54) Title: DETECTING AND PROFILING MOLECULAR COMPLEXES

(57) Abstract: Methods are provided for detecting the formation of complexes of molecules, especially proteins, in a sample, such as a cell or tissue lysate. In one aspect, a cleaving probe specific for a first protein in a complex and one or more binding compounds specific for one or more second proteins in a complex are provided. Upon binding, the cleaving probe is induced to generate an active species, such as singlet oxygen, that cleaves molecular tags attached to the binding compounds only in the local region of the cleaving probe. The released molecular tags are separated from the assay mixture and from one another to provide a readout that is related to the number and types of proteins present in the complex.

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