

9. The method of claim 8, wherein the additives are selected from the group of additives in Table 2.

10. The method of claim 9, further comprising step (g) exchanging the protein into the buffer and additive wherein the protein solution drop is soluble and monodispersed to conduct crystallization trials.

11. A high-throughput method to screen for the optimum solubility condition to crystallize proteins comprising the following steps: (a) providing a multi-well container having at least 24 wells, wherein each well optionally features a pedestal; (b) adding a reservoir of each of the set of 24 buffers in Table 5 to each well; (c) providing each well with a cover slip; (d) depositing on each cover slip or pedestal, a protein solution drop comprised of an aliquot of the protein and an aliquot of the buffer in the well; (5) inverting the cover slips onto each respective well; (e) incubating the container at a given temperature for a sufficient period; and (f) evaluating any clear protein solution drops for monodispersity in order to select the optimum solubility condition.

12. The method of claim 11, wherein if the protein solution drops are not clear, steps a-f are repeated with the buffer which showed the lowest monodispersity, wherein

step (c) further comprising step (c.1) adding an aliquot of an additive to said protein solution drop to find the best condition.

13. The method of claim 5, wherein the additives are selected from the group of additives in Table 6.

14. A kit comprised of a set of vials or containers containing all 24 buffers in Table 1 formulated and ready for use, having sufficient volume of each buffer supplied to perform at least two screens of a protein target according to claim 1.

15. The kit of claim 14, further comprising vials or containers having the additives of Table 2, formulated and ready for use having sufficient volume of each buffer is supplied to perform at least two screens of a protein target according to claim 8.

16. The kit of claim 14, further comprising complete instructions, formulations and scoring sheet.

17. A crystallization plate containing the set of 24 buffers in Table 1.

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