

Protein Crystallization Kit

MBPC001-1PK

X-ray crystallography has emerged as a vital subject in the field of life sciences for determining the protein structure. In 1962 the Nobel Prize in Chemistry was awarded to the pioneering studies on X-ray crystal structures of myoglobin (1950) and hemoglobin (1955). X-ray crystallography is based on the fact that X-rays are diffracted by crystals. The first step during determination of X-ray crystal structure is the growth of sufficiently large protein crystal which is a three-dimensional periodic arrangement of protein molecules. Protein crystallization is the most commonly used technique for resolving protein structures at the atomic level which in turn enables to understand the protein function. This entire study helps in designing novel drugs that target a particular protein.

The Protein Crystallization Kit provides an efficient screening method for determining the solubility and optimal starting conditions for protein crystallization. The solutions of this kit are supplied in small volume and cover a wide range of pH with variations in buffer, salt and precipitant. The protein sample should be as homogenous as possible with a purity of greater than 95%. Several conditions come into factor if a protein sample will crystallize or not. Some of these factors include protein purity and concentration, pH, temperature, precipitants and additives. pH conditions are very important due to the fact that different pHs can result in different packing orientations. Precipitants, such as ammonium sulfate or polyethylene glycol (PEG) are compounds that cause the protein to precipitate out of solution.

The Protein Crystallization Kit provides the reagents required for rapid screening to determine the appropriate condition for crystallization of purified protein samples. One pack of this kit contains 10 ml of each reagent. The reagents and solutions in this kit are formulated using high purity reagents and ultrapure water. All solutions have been filtered through 0.22 µm filters.

Kit Contents:

Reagent Number	Product Code	Product Name	pH
1	ML129	1M Bicine	7.5
2	ML130	1M Bicine	8.0
3	ML131	1M Bicine	8.5
4	ML132	1M Bicine	9.0
5	ML133	1M HEPES	6.5
6	ML134	1M HEPES	7.0
7	ML135	1M HEPES	7.5
8	ML136	1M MES	5.5
9	ML137	1M MES	6.0
10	ML138	1M MES	6.5
11	ML139	1M MOPS	6.5
12	ML140	1M MOPS	7.0
13	ML141	1M MOPS	7.5
14	ML142	1M PIPES	6.0
15	ML143	1M PIPES	6.5
16	ML144	1M PIPES	7.0
17	ML145	1M Sodium Cacodylate	5.0
18	ML146	1M Sodium Cacodylate	5.5
19	ML147	1M Sodium Cacodylate	6.0
20	ML148	1M Sodium Cacodylate	6.5
21	ML149	1M Sodium Cacodylate	7.0
22	ML150	1M Tris	7.5
23	ML151	1M Tris	8.0
24	ML152	1M Tris	8.5

Safety Information

The Protein Crystallization Kit is for laboratory use only, not for drug, household or other uses. Please refer the Material Safety Data Sheet (MSDS) for information regarding hazards and safe handling practices.

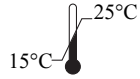
Product Use Limitation & Warranty

Protein Crystallization Kit is designed and sold for research and in vitro purposes only. The product is not to be used for human diagnostic or drug purposes or to be administered to humans unless expressed clearly for that purpose by the Food and Drug Administration or the

appropriate regulatory authorities in the country of use. All due care and attention should be exercised in the handling of many of the materials described in the text.

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.



Storage temperature



Do not use if package is damaged



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Disclaimer :

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