

Materials List for:

Biochemical and Structural Characterization of the Carbohydrate Transport Substrate-binding-protein SP0092

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URL: <https://www.jove.com/video/56294>

DOI: [doi:10.3791/56294](https://doi.org/10.3791/56294)

Materials

Name	Company	Catalog Number	Comments
SelenoMethionine Medium Complete	Molecular Dimensions	MD12-500	Based on a synthetic M9 minimal media supplemented with glucose, vitamins and amino acids with the exception of L-methionine. Other equivalent products are commercially available by other companies.
MicroAmp Optical 96-Well plate	Applied Biosystems	4306737	The Applied Biosystems MicroAmp Optical 96-Well Reaction Plate with Barcode is optimized to provide unmatched temperature accuracy and uniformity for fast, efficient PCR amplification. This plate, constructed from a single rigid piece of polypropylene in a 96-well format, is compatible with Applied Biosystems® 96-Well Real-Time PCR systems and thermal cyclers.
SYPRO Orange	Molecular Probes	S6651	SYPRO Orange Protein Gel Stain is a sensitive, ready-to-use fluorescent stain for proteins in 1D gels. Quite universal and well-established protein dye for hydrophobic regions.
MicroAmp Optical Adhesive film	Applied Biosystems	4311971	The Applied Biosystems MicroAmp Optical Adhesive Film reduces the chance of well-to-well contamination and sample evaporation when applied to a microplate. It is ideal for optical measurement, because it gives low background.
7500 Fast Real-time PCR System	Applied Biosystems	4362143	The Applied Biosystems 7500 Fast Real-Time PCR System enables standard 96-well format high speed thermal cycling, significantly reducing your run time for quantitative real-time PCR applications, delivering results in about 30 minutes. The Upgrade Kit is available to upgrade a standard 7500 Real-Time PCR System to the Fast Configuration via a field service installation. Other RT-PCR machine can be used. Data export not easy for the old data analysis software.

Superdex 200 increase 10/300 GL column	GE Healthcare	28990944	Superdex 200 Increase 10/300 GL is a versatile, prepacked column for size exclusion chromatography in small-scale (mg) preparative purification as well as for characterization and analysis of proteins with molecular weights between 10 000 and 600 000, such as antibodies. Optimal separation ideal for high resolution biophysical techniques.
DAWN HELEOS II	Wyatt		DAWN HELEOS II is the premier Multi-Angle static Light Scattering (MALS) detector for absolute characterization of the molar mass and size of macromolecules and nanoparticles in solution. The DAWN offers the highest sensitivity, the widest range of molecular weight, size and concentration, and the largest selection of configurations and optional modules for enhanced capabilities. Other MALS detecting systems from other companies apart from Wyatt have not been tested, so no additional feedback can be provided.
Superdex 200 5/150 GL	GE Healthcare	28906561	Superdex 200 are prepacked size exclusion chromatography columns for high-resolution small-scale preparative and analytical separations of biomolecules. Superdex 200 has a separation range for molecules with molecular weights between 10 000 and 600 000. The peak separation is not as optimal as for the "increase" version but this model is ideal for the standard day by day use.
HiLoad 16/600 Superdex 200 pg	GE Healthcare	28989335	HiLoad 16/600 Superdex 200 prep grade are prepacked XK columns designed for high-resolution preparative gel filtration chromatography.
24 Well "Big" Sitting Drop Crystallization Plate	MiTeGen	XQ-P-24S-A	The 24 well "big" crystallization plate is used mainly for protein crystal screening by sitting drop vapor diffusion techniques, and for crystallization condition optimization. It has quite large reservoir well and sample container, which favor manual handling and big sized protein crystal growth. In addition, its flat surfaces are easily to be sealed by transparent tape or cover slips.
PCT Pre-Crystallization Test	Hampton	HR2-140	The PCT Pre-Crystallization Test is used to determine the appropriate protein concentration for crystallization screening.
96 Well CrystalQuick	Greiner bio-one	6098xx	Square-well plates have three crystallization wells per reservoir, making it possible to test 288 samples per plate. Generally used only for the initial screening

			because their squared edge make crystals fishing difficult.
Uni-Puck	Molecular Dimensions	MD7-601	The Universal V1-Puck (Uni-puck) is a sample pin storage and shipping container for use with the majority of automated sample mounting systems worldwide - includes the ACTOR, SAM and CATS systems amongst others (Diamond, Soleil, SPring-8, Photon Factory, CLSI and across the USA)
Standard Foam Dewar	Molecular Dimensions	MD7-35	5.7" diameter by 2.8" deep. 800mL capacity.
Mounted CryoLoop - 20 micron	Hampton	HR4-955	Mounted CryoLoops with 20 micron diameter nylon. These nylon loops are bonded to hollow, stainless steel MicroTubes™ that are used to mount, freeze, and secure the crystal during cryocrystallographic procedures and X-ray data collection. Different sizes exist and they can be adapted in lenght. They are quite versatile tools.
CryoWand	Molecular Dimensions	MD7-411	
Puck dewar loading tool	Molecular Dimensions	MD7-607	This tool is used to separate uni-pucks to load them into the robot dewar. It consists of two pieces: a Teflon tube part and a metal rod part.