P07001 / P07002
DUALXtract buffer set

Product	DUALXtract buffer set, trial size (P07001) DUALXtract buffer, standard size (P07002)
Contents	DUALXtract buffers #1-12, 0.5 ml (P07001) DUALXtract buffers #1-12, 5 ml (P07002)
Storage	Store at -20°C (long-term) or at 4°C (short-term), do not subject to multiple freeze-thaw cycles

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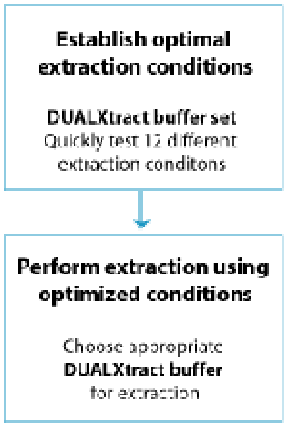
Background

DUALXtract buffers provide optimal conditions for efficient extraction and stabilization of membrane proteins from cell membranes by using a variety of non-denaturing detergent and synthetic lipid analogs, including alkyl saccharides (DUALXtract buffers 1 and 2), acyl-N-methylglucomide (DUALXtract buffer 4), bile acid salt (DUALXtract buffer 6), alkylaminoxide (DUALXtract buffer 7), alkylpolyethylenes (DUALXtract buffers 3, 5 and 11), zwitterionic detergents (DUALXtract buffers 8, 9 and 12), and synthetic phosphocholine derivative (DUALXtract buffer 10).

Instructions

Use the DUALXtract buffer sets (P07001 and P07002) to determine the optimal extraction conditions for your membrane protein of interest. Once you have determined which of the 12 extraction buffers gives optimal results, you can prepare large scale extractions using the appropriate DUALXtract buffer.



Protocol

Prepare cell membranes

- Prepare cell membranes using an appropriate protocol. In general, cell membranes are isolated from total cell lysates by high-speed centrifugation, followed by washing with an appropriate buffer and storage at -80°C.
- Estimate the total protein concentration of the membrane preparation.
- Prepare 12 microcentrifuge tubes and add 0.2 mg of total protein to each tube, keep tubes on ice. Microcentrifuge tubes from beckman (Cat. No. 357448) should be used in this step.
- Centrifuge the tubes at 100,000x g for 45 minutes.
- Remove the supernatant and keep the membrane pellets on ice.

Solubilize membrane proteins

- Thaw the 12 DUALXtract buffers provided in the kit and vortex well to dissolve any precipitates that may have formed during storage. If necessary, warm briefly to dissolve the precipitated material.
- Add 60 µl of each DUALXtract buffer to one of the microcentrifuge tubes.
- Supplement the DUALXtract buffers with appropriate protease inhibitors if needed.
- Suspend the membranes by vortexing and incubate at room temperature for 2 hours to overnight. Incubation time depends on the stability of your membrane protein and has to be determined experimentally.
- Centrifuge the solubilization mixture at 14'000x g for 15 minutes.
- Transfer each supernatant into a fresh tube for analysis by SDS-PAGE and/or downstream processing.

Related products	P07101-12	DUALXtract buffers
	P07501	DUALrefold membrane protein refolding kit

Support

Please see www.dualsystems.com for support and protocols. Please direct support inquiries to support@dualsystems.com or call +41 44 738 50 00.

Research use

This product is intended for research use only, not for diagnostic or therapeutic uses.

MSDS

Please see the accompanying MSDS for safety and handling instructions. Observe good laboratory practice guidelines and wear gloves, laboratory coat and glasses when handling the product.