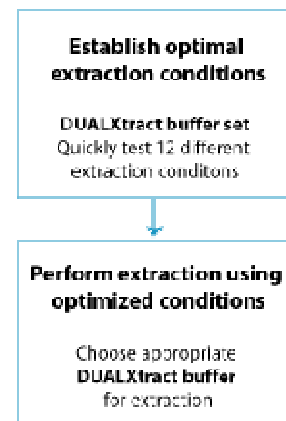


P07101 - P07112 DUALXtract buffer

Product	DUALXtract buffer for optimal extraction of membrane proteins
Contents	P07101 – P07112 DUALXtract buffer 1 - 12 1 vial (40 ml)
Storage	Store at -20°C (long-term) or at 4°C (short-term), do not subject to multiple freeze-thaw cycles

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.
- Add the appropriate amount of the membrane preparation to a fresh tube and keep on ice.
- Centrifuge the membranes at 100,000x g for 45 min.
- Remove the supernatant and keep the membrane pellets on ice.

Solubilize membrane proteins

- Thaw the DUALXtract buffer and vortex well to dissolve any precipitates that may have formed during storage. If necessary, warm briefly to dissolve the precipitated material.
- Calculate the amount of DUALXtract buffer needed: use 1 ml of DUALXtract buffer per 3.3 mg total protein.
- Supplement the DUALXtract buffer with appropriate protease inhibitors if needed.
- Add the DUALXtract buffer to the membrane pellet.
- Suspend the membranes by vortexing and incubate under the conditions that you have previously determined using the DUALXtract buffer set.
- Centrifuge the solubilization mixture at 14'000x g for 15 minutes.
- Transfer each supernatant into a fresh tube for analysis and downstream processing.

Related products	P07001	DUALXtract buffer set (trial size)
	P07002	DUALXtract buffer set (standard size)
	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.