



MemAdvantage™

MD1-70

An additive screen developed exclusively for membrane proteins. This screen targets all alpha helical types of Prokaryotic and Eukaryotic membrane proteins.

Developed by Simon Newstead and Joanne Parker from University of Oxford, UK.

MD1-70 is presented as a 96 x 0.25 mL in a deep-well SBS block.

Features of MemAdvantage™:

- A rational and intelligently designed additive screen targeted specifically for membrane proteins.
- Allows easy screening of 96 different additives (12 different classes of the following: polyalcohols, detergents, multivalent salts, non-volatile organics etc.) found to be the most successful* in membrane protein crystallization.
- Particularly suited for Prokaryotic and Eukaryotic alpha helical membrane proteins.
- For initial screening or optimization screening.
- Ready-to-use deep-well block.

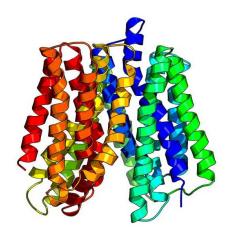
MemAdvantage™ was developed from the identification of successful additives (using data mining) currently used in the crystallization of membrane proteins. It contains a novel set of chemicals presented as a 96-format screen for implementation in robotic screening pipelines. The kit is designed to help test the effect of 96 different compounds on membrane protein crystal growth.

Detergent selection is a critical parameter for growing well-ordered, well diffracting crystals and with so many choices of detergents/ligands to choose it can be both time consuming and expensive to investigate all possibilities.

MemAdvantage™ takes the most successful ligands, detergents, multivalent salts, polyalcohols, non-volatile organics, organics, amphiphiles and puts them all together in one easy-to-use additive screen.

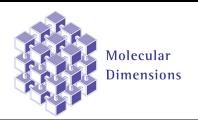
Additives may affect hydration and intermolecular interactions between protein molecules or between protein molecule and solvent and even ligands.

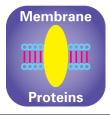
This kit is a screen and results may need to be interpreted with a view to designing further additive experiments using different compounds of the same type as the kit reagent that gave a promising result.



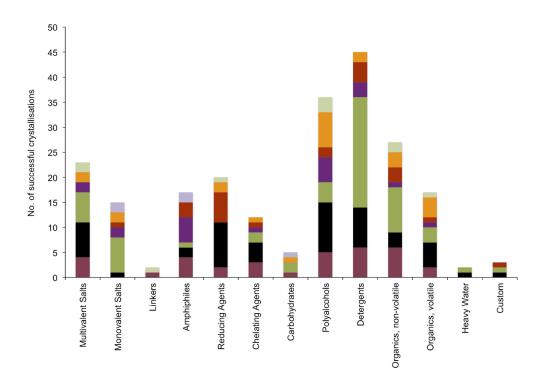
*References:

Parker, J. and Newstead, S. 'Current trends in alpha helical membrane protein crystallization: an update', Protein Science, 2012, 21 (9):1358-1365.

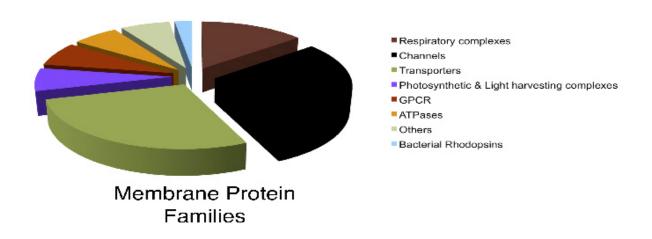


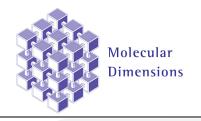


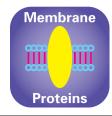




Additives found in MemAdvantage $^{\text{m}}$ and their successfulness in crystallization of membrane proteins - see pie chart below.









Instructions for Use:

We recommend you use a 1/10 dilution of additive to your crystallization screen. You can either place the additive straight into the mother liquor (easiest option) or pipette the screen into another plate and aspirate from this during set-up.

As the screen does contain volatiles it is recommended that the additives are placed in the mother liquor as well.

Recommended storage for MemAdvantage™ is -20°C. Allow block to equilibrate to room temperature prior to use. If any of the reagents have precipitated just warm your block up at 37°C for 20 mins.

Formulation Notes:

MemAdvantageTM reagents are formulated using ultrapure water (>18.0 M Ω) and are sterile-filtered using 0.22 μ m filters. No preservatives are added.

Final pH may vary from that specified on the datasheet. Molecular Dimensions will be happy to discuss the precise formulation of individual reagents.

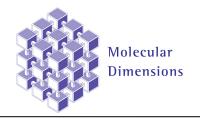
Individual reagents and stock solutions for optimization are available from Molecular Dimensions.

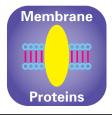
Enquiries regarding MemAdvantage™ formulation, interpretation of results or optimization strategies are welcome. Please e-mail, fax or phone your query to Molecular Dimensions.

Contact and product details can be found at www.moleculardimensions.com

Manufacturer's safety data sheets are available to download from our website.

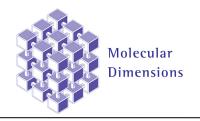
MemAdvantage[™] is manufactured and distributed under an exclusive license with Dr. Simon Newstead and University of Oxford. Limited Use and Restrictions: Products sold by Molecular Dimensions Ltd. or its affiliates or authorized distributors and information relating to same are intended for research use only in crystal growth and optimization of crystal growth following use of the product by the purchaser and are not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, including resale or use in manufacture. The license to use MemAdvantage[™] specifically excludes any rights to use the product information for the manufacture of the product or derivatives thereof, or distribute,

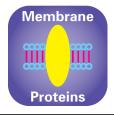






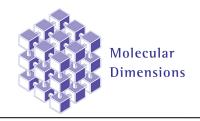
| | MemAdvantage™ HT Rov | vs A - D | MD1-70 |
|--------|---|--------------------|------------|
| Well # | Reagent | Туре | Conc Units |
| A1 | HEGA-10 | Detergent | 70.0 mM |
| A2 | HEGA 11 | Detergent | 4.2 mM |
| A3 | C-HEGA-11 | Detergent | 11.5 mM |
| A4 | CHAPS | Detergent | 60.0 mM |
| A5 | BigCHAP, deoxy | Detergent | 14.0 mM |
| A6 | ONG (octyl glucose neopentyl glycol) | Detergent | 10.2 mM |
| A7 | DNG (decyl maltose neopentyl glycol) | Detergent | 3.6 mM |
| A8 | LNG (lauryl maltose neopentyl glycol) | Detergent | 1.0 mM |
| A9 | UDTM (n-undecyl-B-D-thiomaltopyranoside) | Detergent | 2.1 mM |
| A10 | NDM (n-nonyl-β-D-maltopyranoside) | Detergent | 60.0 mM |
| A11 | DSM (n-decyl-β-d-thiomaltopyranoside) | Detergent | 9.0 mM |
| A12 | OG (n-octyl-β-D-glucoside) | Detergent | 190.0 mM |
| B1 | DM (n-decyl-β-D-maltopyranoside) | Detergent | 18.0 mM |
| B2 | NG (n-nonyl-β-D-glycopyranoside) | Detergent | 65.0 mM |
| В3 | DDM (n-dodecyl-β-D-maltopyranoside) | Detergent | 1.7 mM |
| B4 | HTG (n-heptyl-β-D-thioglucopyranoside) | Detergent | 290.0 mM |
| B5 | LAPAO (3-laurylamido-N,N'-dimethylpropyl amin | o oxide) Detergent | 15.6 mM |
| B6 | LDAO (n-dodecyl-N,N-dimethylamine-N-oxide) | Detergent | 15.0 mM |
| B7 | CYMAL®-1 | Detergent | 340.0 mM |
| B8 | CYMAL®-2 | Detergent | 120.0 mM |
| В9 | CYMAL®-4 | Detergent | 76.0 mM |
| B10 | CYMAL®-5 | Detergent | 37.0 mM |
| B11 | CYMAL®-6 | Detergent | 5.6 mM |
| B12 | CYMAL®-7 | Detergent | 1.9 mM |
| C1 | Fos-Choline-9 | Detergent | 39.5 mM |
| C2 | Fos-Choline-12 | Detergent | 15.0 mM |
| C3 | C8E4 (tetraethylene glycol monooctyl ether) | Detergent | 80.0 mM |
| C4 | C12E8 (octaethylene glycol monododecyl ether) | Detergent | 0.9 mM |
| C5 | Anzergent® 3-12 | Detergent | 30.0 mM |
| C6 | OM-fluorinated (octyl maltoside flourinated) | Detergent | 10.2 mM |
| C7 | UDM (n-undecyl-β-D-maltoside) | Detergent | 5.9 mM |
| C8 | Tri DM (n-tridecyl-β-D-maltoside) | Detergent | 0.3 mM |
| C9 | sucrose monocaprate (Sucrose monodecanoat | | 25.0 mM |
| C10 | Sucrose monododecanoate | Detergent | 3.0 mM |
| C11 | TRIPAO | Detergent | 45.0 mM |
| C12 | MERPOL® HCS surfactant | Detergent | 5.0 % v/v |
| D1 | DMG (n-dodecyl-N,N-dimethylglycine) | Detergent | 15.0 mM |
| D2 | Potassium Chloride | Monovalent | 100.0 mM |
| D3 | Potassium Fluoride | Monovalent | 100.0 mM |
| D4 | Potassium Silicate | Monovalent | 100.0 mM |
| D5 | Sodium Acetate | Monovalent | 100.0 mM |
| D6 | Sodium Azide | Monovalent | 100.0 mM |
| D7 | Sodium Chloride | Monovalent | 100.0 mM |
| D8 | Sodium Fluoride | Monovalent | 100.0 mM |
| D9 | Sodium Phosphate dibasic | Monovalent | 100.0 mM |
| D10 | Lithium Citrate tribasic tetrahydrate | Monovalent | 100.0 mM |
| D11 | Lithium Sulfate | Monovalent | 100.0 mM |
| D12 | Rubidium Chloride | Monovalent | 100.0 mM |

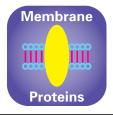






| E1 Ammonium citrate tribasic Multivalent 10 E2 Ammonium sulfate Multivalent 10 E3 Cadmium chloride hemi(pentahydrate) Multivalent 10 E4 Calcium chloride dihydrate Multivalent 10 E5 Chromium(III) chloride hexahydrate Multivalent 10 E6 Cobalt(II) chloride hexahydrate Multivalent 10 E7 Copper(II) chloride hexahydrate Multivalent 10 E8 Gadolinium(III) chloride hexahydrate Multivalent 10 E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 E12 Osmium(III) chloride hexahydrate Multivalent 10 E12 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 I,3-Propanediol Organic, volatile E6 I,4-Butanediol Organic, volatile E7 I-Butanol Organic, volatile E7 1-Butanol Organic, volatile E7 2-Propanol Organic, volatile E7 1-Butanol Organic, volatile E7 2-Propanol Organic, volatile E7 Triethylammonium phosphate Organic, volatile E7 Triethylammonium phosphate Organic, volatile E7 Deuterium oxide Heavy water E7 Dropanic, non volatile E7 L-Glutathione reduced Organic, non volatile E7 MPD Organic, non volatile | Conc Units 00.0 mM 00.0 mM 00.0 mM 00.0 mM 00.0 mM 00.0 mM |
|--|--|
| E1 Ammonium citrate tribasic Multivalent 10 E2 Ammonium sulfate Multivalent 10 E3 Cadmium chloride hemi(pentahydrate) Multivalent 10 E4 Calcium chloride dihydrate Multivalent 10 E5 Chromium(III) chloride hexahydrate Multivalent 10 E6 Cobalt(II) chloride hexahydrate Multivalent 10 E7 Copper(II) chloride hexahydrate Multivalent 10 E8 Gadolinium(III) chloride hexahydrate Multivalent 10 E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hexahydrate Multivalent 10 E12 Osmium(III) chloride hexahydrate Multivalent 10 E13 Zinc nitrate hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Tinc sulfate heptahydrate Multivalent 10 E7 Tinc sulfat | 00.0 mM 00.0 mM 00.0 mM 00.0 mM |
| E3 Cadmium chloride hemi(pentahydrate) Multivalent 10 E4 Calcium chloride dihydrate Multivalent 10 E5 Chromium(III) chloride hexahydrate Multivalent 10 E6 Cobalt(II) chloride hexahydrate Multivalent 10 E7 Copper(II) chloride Multivalent 10 E8 Gadolinium(III) chloride hexahydrate Multivalent 10 E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 E13 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Inc nitrate hexahydrate Multivalent 10 E7 Inc sulfate heptahydrate Multivalent 10 E7 Inc sulfate heptahydrate Multivalent 10 E7 Inc nitrate hexahydrate Multivalent 10 E7 Inc nitrat | 00.0 mM 00.0 mM 00.0 mM 00.0 mM |
| E4 Calcium chloride dihydrate E5 Chromium(III) chloride hexahydrate E6 Cobalt(II) chloride hexahydrate E7 Copper(II) chloride E8 Gadolinium(IIII) chloride hexahydrate E9 Magnesium chloride hexahydrate E10 Magnesium sulfate heptahydrate E11 Manganese(II) chloride tetrahydrate E12 Osmium(IIII) chloride hexahydrate E13 Multivalent E14 Samarium(III) chloride hexahydrate E15 Multivalent E16 Multivalent E17 Multivalent E18 Multivalent E19 Magnesium sulfate heptahydrate E10 Magnesium sulfate heptahydrate E11 Manganese(II) chloride tetrahydrate E12 Osmium(III) chloride hexahydrate E12 Multivalent E13 Strontium chloride hexahydrate E14 Zinc nitrate hexahydrate E15 Aja-Propanediol E16 1,4-Butanediol E17 1-Butanol E18 Ethanol E19 2-Propanol E19 2-Propanol E19 2-Propanol E10 tert-Butanol E10 Organic, volatile E11 Triethylammonium phosphate E12 Deuterium oxide E13 Cricalitathione reduced E14 Cricalitathione reduced E15 Organic, non volatile E16 Organic, non volatile E17 Teganic, non volatile E18 Cricalitathione reduced E19 Organic, non volatile E10 Organic, non volatile E11 Triethylammonium phosphate E12 Deuterium oxide E13 Cricalitathione reduced E14 Cricalitathione reduced E15 Organic, non volatile E16 Organic, non volatile E17 Organic, non volatile E18 Cricalitathione reduced E2 MPD Organic, non volatile E2 MPD Organic, non volatile E30 Organic, non volatile E40 Organic, non volatile E40 Organic, non volatile E41 Cricalitathione reduced E40 Organic, non volatile E41 Organic, non volatile E40 Organic, non volatile E40 Organic, non volatile E40 Organic, non volatile | 00.0 mM 00.0 mM 00.0 mM |
| E4 Calcium chloride dihydrate E5 Chromium(III) chloride hexahydrate E6 Cobalt(II) chloride hexahydrate E7 Copper(II) chloride E8 Gadolinium(III) chloride hexahydrate E9 Magnesium chloride hexahydrate E10 Magnesium sulfate heptahydrate E11 Manganese(II) chloride tetrahydrate E12 Osmium(IIII) chloride hexahydrate E13 Multivalent E14 Samarium(III) chloride hexahydrate E15 Multivalent E16 Multivalent E17 Multivalent E18 Multivalent E19 Magnesium sulfate heptahydrate E10 Magnesium sulfate heptahydrate E11 Manganese(II) chloride tetrahydrate E12 Osmium(III) chloride hydrate E13 Strontium chloride hexahydrate E14 Strontium chloride hexahydrate E15 Strontium chloride hexahydrate E16 Multivalent E17 Alic sulfate heptahydrate E18 Jinc nitrate hexahydrate E19 Multivalent E10 Organic, volatile E10 Organic, volatile E11 Al-Butanediol E12 Organic, volatile E13 Creanic, volatile E14 Organic, volatile E15 1,3-Propanel E16 1,4-Butanol E17 1-Butanol E18 Ethanol E19 2-Propanol E19 2-Propanol E10 tert-Butanol E10 Organic, volatile E11 Triethylammonium phosphate E12 Deuterium oxide E13 L-Glutathione reduced E14 L-Glutathione reduced E15 MPD Organic, non volatile E16 MPD Organic, non volatile E17 Organic, non volatile E18 Chromium (III) chloride hexahydrate E19 Multivalent E10 Organic, non volatile E11 Triethylammonium phosphate E10 Organic, non volatile E10 Organic, non volatile E11 Organic, non volatile | 00.0 mM 00.0 mM |
| E5 Chromium(III) chloride hexahydrate Multivalent 16 E6 Cobalt(II) chloride hexahydrate Multivalent 16 E7 Copper(II) chloride Multivalent 16 E8 Gadolinium(III) chloride hexahydrate Multivalent 16 E9 Magnesium chloride hexahydrate Multivalent 16 E10 Magnesium sulfate heptahydrate Multivalent 16 E11 Manganese(II) chloride tetrahydrate Multivalent 16 E12 Osmium(III) chloride hydrate Multivalent 16 E13 Samarium(III) chloride hexahydrate Multivalent 16 E14 Samarium(III) chloride hexahydrate Multivalent 16 E7 Strontium chloride hexahydrate Multivalent 16 E7 Strontium chloride hexahydrate Multivalent 16 E7 I,3-Propanediol Organic, volatile 17 E7 I,4-Butanediol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-rethylammonium phosphate Organic, volatile 17 E7 I-rethylammonium phosphate Organic, volatile 17 E7 Deuterium oxide Heavy water 17 E7 Deuterium oxide Heavy water 17 E7 Multivalent 17 E7 Organic, non volatile 17 E7 Organi | 00.0 mM 00.0 mM |
| E6 Cobalt(II) chloride hexahydrate Multivalent 16 E7 Copper(II) chloride Multivalent 16 E8 Gadolinium(III) chloride hexahydrate Multivalent 16 E9 Magnesium chloride hexahydrate Multivalent 16 E10 Magnesium sulfate heptahydrate Multivalent 16 E11 Manganese(II) chloride tetrahydrate Multivalent 16 E12 Osmium(III) chloride hydrate Multivalent 16 E13 Samarium(III) chloride hexahydrate Multivalent 16 E14 Samarium(III) chloride hexahydrate Multivalent 16 E7 Strontium chloride hexahydrate Multivalent 16 E7 Strontium chloride hexahydrate Multivalent 16 E7 I,3-Propanediol Organic, volatile 17 E7 I,3-Propanediol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-Butanol Organic, volatile 17 E7 I-rethylammonium phosphate Organic, volatile 17 E7 I-rethylammonium phosphate Organic, volatile 17 E7 Deuterium oxide Heavy water 17 E7 Deuterium oxide Heavy water 17 E7 MPD Organic, non volatile 17 E7 Organic 17 E7 Or | 00.0 mM |
| E7 Copper(II) chloride Multivalent 10 E8 Gadolinium(III) chloride hexahydrate Multivalent 10 E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 E13 Samarium(III) chloride hexahydrate Multivalent 10 E14 Strontium chloride hexahydrate Multivalent 10 E7 Strontium chloride hexahydrate Multivalent 10 E7 Zinc nitrate hexahydrate Multivalent 10 E7 Zinc sulfate heptahydrate Multivalent 10 E5 1,3-Propanediol Organic, volatile E6 1,4-Butanediol Organic, volatile E7 1-Butanol Organic, volatile E8 Ethanol Organic, volatile E9 2-Propanol Organic, volatile E9 1-Propanol Organic, volatile E9 2-Propanol Organic, volatile E9 1-Propanol Organic, volatile E9 2-Propanol Organic, volatile E9 2-Propanol Organic, volatile E9 1-Propanol Organic, volatile E9 2-Propanol Organic, volatile E9 | |
| E8 Gadolinium(III) chloride hexahydrate Multivalent 10 E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 E13 Samarium(III) chloride hexahydrate Multivalent 10 E14 Samarium(III) chloride hexahydrate Multivalent 10 E15 Strontium chloride hexahydrate Multivalent 10 E16 Zinc nitrate hexahydrate Multivalent 10 E17 A-Butanediol Organic, volatile 11 E18 Ethanol Organic, volatile 11 E19 2-Propanol Organic, volatile 11 E19 2-Propanol Organic, volatile 11 E10 tert-Butanol Organic, volatile 11 E10 Triethylammonium phosphate Organic, volatile 11 E11 Triethylammonium phosphate Organic, volatile 11 E12 Deuterium oxide Heavy water 11 E19 Organic, non volatile 11 E10 MPD Organic, non volatile 11 E10 Organic, non volatile 11 E11 Triethylammonium phosphate Organic, non volatile 11 E12 Organic, non volatile 11 E13 PEG 400 Organic, non volatile 11 E19 Organi | |
| E9 Magnesium chloride hexahydrate Multivalent 10 E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 F1 Samarium(III) chloride hexahydrate Multivalent 10 F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 11 G3 PEG 400 | 00.0 mM |
| E10 Magnesium sulfate heptahydrate Multivalent 10 E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 F1 Samarium(III) chloride hexahydrate Multivalent 10 F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile 0 F6 1,4-Butanediol Organic, volatile 0 F7 1-Butanol Organic, volatile 0 F8 Ethanol Organic, volatile 0 F9 2-Propanol Organic, volatile 0 F10 tert-Butanol Organic, volatile 11 F11 Triethylammonium phosphate Organic, volatile 11 F12 Deuterium oxide Heavy water 11 G1 L-Glutathione reduced Organic, non volatile 11 G2 MPD Organic, non volatile 11 G3 PEG 400 Organic, non volatile 11 | 00.0 mM |
| E11 Manganese(II) chloride tetrahydrate Multivalent 10 E12 Osmium(III) chloride hydrate Multivalent 10 F1 Samarium(III) chloride hexahydrate Multivalent 10 F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 10 G3 PEG 400 Organic, non volatile 11 | 00.0 mM |
| E12 Osmium(III) chloride hydrate Multivalent 10 F1 Samarium(III) chloride hexahydrate Multivalent 10 F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 00.0 mM |
| F1 Samarium(III) chloride hexahydrate Multivalent 10 F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 11 G3 PEG 400 Organic, non volatile 11 | 00.0 mM |
| F2 Strontium chloride hexahydrate Multivalent 10 F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Multivalent 10 Organic, volatile Organic, volatile Organic, volatile Organic, non volatile Organic, non volatile | 00.0 mM |
| F3 Zinc nitrate hexahydrate Multivalent 10 F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 00.0 mM |
| F4 Zinc sulfate heptahydrate Multivalent 10 F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 00.0 mM |
| F5 1,3-Propanediol Organic, volatile F6 1,4-Butanediol Organic, volatile F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 00.0 mM |
| F61,4-ButanediolOrganic, volatileF71-ButanolOrganic, volatileF8EthanolOrganic, volatileF92-PropanolOrganic, volatileF10tert-ButanolOrganic, volatileF11Triethylammonium phosphateOrganic, volatileF12Deuterium oxideHeavy waterG1L-Glutathione reducedOrganic, non volatileG2MPDOrganic, non volatileG3PEG 400Organic, non volatile | 0.2 % v/v |
| F7 1-Butanol Organic, volatile F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | |
| F8 Ethanol Organic, volatile F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 0.2 % v/v |
| F9 2-Propanol Organic, volatile F10 tert-Butanol Organic, volatile F11 Triethylammonium phosphate Organic, volatile F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile G2 MPD Organic, non volatile G3 PEG 400 Organic, non volatile | 7.0 % v/v |
| F10 tert-Butanol Organic, volatile 11 F11 Triethylammonium phosphate Organic, volatile 10 F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 11 G3 PEG 400 Organic, non volatile 11 | 10.0 % v/v |
| F11 Triethylammonium phosphate Organic, volatile 10 F12 Deuterium oxide Heavy water G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 11 G3 PEG 400 Organic, non volatile 11 | 5.0 % v/v |
| F12 Deuterium oxide G1 L-Glutathione reduced G2 MPD G3 PEG 400 Heavy water Organic, non volatile Organic, non volatile Organic, non volatile Organic, non volatile | 10.0 % v/v |
| G1 L-Glutathione reduced Organic, non volatile 10 G2 MPD Organic, non volatile 11 G3 PEG 400 Organic, non volatile 11 | 00.0 mM |
| G2 MPD Organic, non volatile 1 G3 PEG 400 Organic, non volatile 1 | 1.0 mM |
| G3 PEG 400 Organic, non volatile | 00.0 mM |
| 9 , | 15.0 % v/v |
| G4 Polyvinylpyrrolidone Organic, non volatile | 15.0 % v/v |
| | 5.0 % w/v |
| , | 0.16 % v/v |
| G6 Taurine Organic, non volatile | 0.2 % w/v |
| G7 Jeffamine® M-600 pH 7.0 Organic, non volatile | 10.0 % v/v |
| G8 PEG 600 Organic, non volatile 1 | 15.0 % √v |
| G9 1,6-Hexanediol Organic, non volatile | 0.2 % w/v |
| G10 Dimethyl sulfoxide (DMSO) Organic, non volatile 3 | 30.0 % v/v |
| G11 Foscarnet (phosphoformic acid) Organic, non volatile 8 | 30.0 mM |
| G12 Glutaric Acid Organic, non volatile | 0.2 % w/v |
| H1 1,2,3-Heptanetriol Amphiphiles | 0.2 % w/v |
| H2 Benzamidine hydrochloride Amphiphiles 2 | 20.0 % w/v |
| H3 Ethylene glycol Polyalcohol 3 | 30.0 % v/v |
| H4 Glycerol Polyalcohol 3 | 30.0 % v/v |
| | 00.0 mM |
| ŭ ŭ | 10.0 mM |
| ŭ ŭ | 40.0 % w/v |
| · | 30.0 % w/v |
| · | 00.0 mM |
| · , | 30.0 mM |
| · | 00.0 mM |
| H12 Gly-Gly Linker 30 | |







Abbreviations:

MPD: 2-methyl, 2,4-pentanediol, PEG: Poly Ethylene Glycol, DMSO:Dimethyl Sulfoxide, EDTA: Ethylenediaminetetraacetic acid, EGTA: ethylene glycol tetraacetic acid, DTT: TCEP: HEGA-10: Decanoyl-N-Hydroxyethylglucamide, HEGA-11; Undecanoyl-N-Hydroxyethylglucamide, C-HEGA-11: Cyclohexylpentanoyl-N-Hydroxyethylglucamide CHAPS: 3-[(3-Cholamidopropyl)-Dimethylammonio]-1-Propane Sulfonate/N,N-Dimethyl-3-Sulfo-N-[3-[[3α,5β,7α,12α)-3,7,12-Trihydroxy-24-Oxocholan-24-yl]Amino]propyl]-1-Propanaminium Hydroxide, Inner Salt, BIG CHAP, deoxy: N,N'-bis-(3-D Gluconamidopropyl)Deoxycholamide, CYMAL®-1,: Cyclohexyl-Methyl-β-D-Maltoside, CYMAL®-2: 2-Cyclohexyl-1-Ethyl-β-D-Maltoside, CYMAL®-4: 4-Cyclohexyl-1-Butyl-β-D-Maltoside, CYMAL®-5: 5-Cyclohexyl-1-Pentyl-β-D-Maltoside, CYMAL®-6: 6-Cyclohexyl-1-Hexyl-β-D-Maltoside, CYMAL®-7: 7-Cyclohexyl-1-Heptyl-β-D-Maltoside, Anzergent® 3-12: n-Dodecyl-N,N-Dimethyl-3-Ammonio-1-Propanesulfonate / N,N-Dimethyl-1-N-(3-Sulfopropyl)-1-Dodecanaminium Hydroxide, Inner Salt, TRIPAO: ((3-(3 Butyl-3-Phenylheptanamido)-N,N-Dimethylpropan-1-Amine Oxide)).

Manufacturer's safety data sheets are available from our website or by scanning the QR code here:



Ordering details:

Catalogue Description Catalogue Code

MemAdvantage™ MD1-70

MemAdvantage™ single reagents MDSR-70-well number

For MemAdvantage™ stock reagents go to Optimization on our website.