



**EUROPEAN
SPALLATION
SOURCE**

Deuteration and Macromolecular Crystallisation Platform

Product List

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Biological: proteins, biomass, nucleic acids

Category
<i>E. coli</i> cell paste (protein expression strains e.g. Tuner DE3, BL21 DE3)
Algal cell paste (<i>Botryococcus braunii</i>)
Yeast cell paste (<i>Pichia pastoris</i>)
Recombinant proteins with user supplied plasmid (standard strains: Tuner DE3, BL21 etc)
Deuterated plasmid DNA

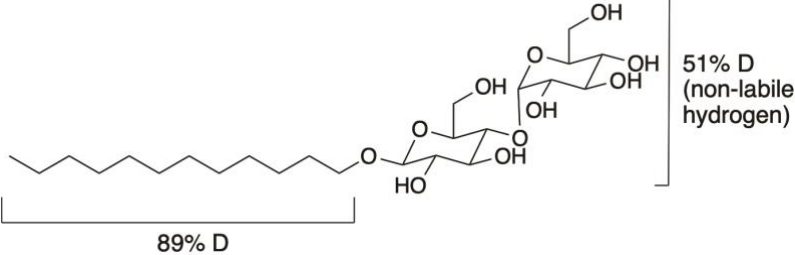
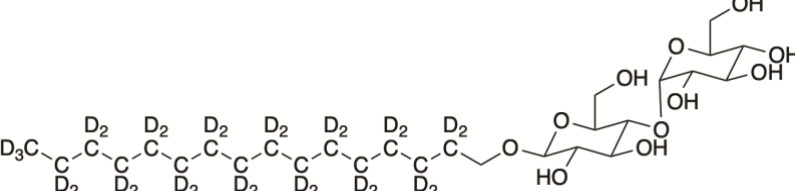
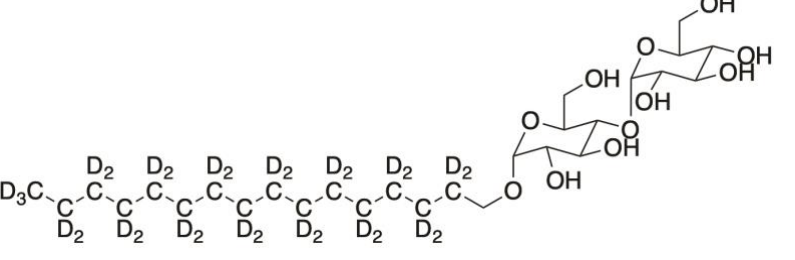
Biological: purified lipid mixtures

Category
Total lipid extract from yeast (<i>Pichia pastoris</i>)
Total phospholipid extract (<i>Pichia pastoris</i>)
Feasibility tests for the purification of specific yeast lipid classes (e.g. PC, PE, cardiolipin, ergosterol) from <i>Pichia Pastoris</i>

Chemical: carboxylic acids, alcohols, alkyl halides

Name	Chemical structure
Octanoic acid- <i>d</i> ₁₅	
Nonanoic acid- <i>d</i> ₁₇	
Decanoic acid- <i>d</i> ₁₉	
Dodecanoic acid- <i>d</i> ₂₃	
Hexadecanoic acid- <i>d</i> ₃₁	
Octadecanoic acid- <i>d</i> ₃₅	
Nonanedioic acid- <i>d</i> ₁₄	
Oleic acid- <i>d</i> ₃₂	
Octanol- <i>d</i> ₁₇	
Nonanol- <i>d</i> ₁₉	
Dodecanol- <i>d</i> ₂₅	
Hexadecanol- <i>d</i> ₃₃	
1-Bromooctane- <i>d</i> ₁₇	
1-Bromononane- <i>d</i> ₁₉	

Chemical: surfactants

Name	Chemical structure
<p><i>n</i>-Dodecyl-β-D-maltopyranoside (alkyl chain 89% deuterated; headgroup 51% deuterated)</p>	
<p><i>n</i>-Hexadecyl-β-D-maltopyranoside-d_{31}</p>	
<p><i>n</i>-Hexadecyl-α-D-maltopyranoside-d_{31}</p>	

Chemical: phospholipids

Name	Chemical structure
1-Palmitoyl- <i>d</i> ₃₁ -2-oleoyl- <i>d</i> ₃₂ - <i>sn</i> -glycero-3-phosphocholine	
1-Palmitoyl-2-oleoyl- <i>d</i> ₃₂ - <i>sn</i> -glycero-3-phosphocholine	
1-Palmitoyl- <i>d</i> ₃₁ -2-oleoyl- <i>d</i> ₃₂ - <i>sn</i> -glycero-3-phosphoethanolamine	
1-Stearoyl- <i>d</i> ₃₅ -2-oleoyl- <i>d</i> ₃₂ - <i>sn</i> -glycero-3-phosphocholine	
1-Stearoyl-2-oleoyl- <i>d</i> ₃₂ - <i>sn</i> -glycero-3-phosphocholine	
1-Palmitoyl-2-(9-oxononanoyl- <i>d</i> ₁₄)- <i>sn</i> -glycero-3-phosphocholine	

Chemical: aromatic molecules

Name	Chemical structure
Salicylic acid- d_4	
Sodium salicylate- d_4	
Choline- d_9 salicylate- d_4	

Chemical: other

Name	Chemical structure
Sodium pyruvate- d_3	
D-Lactic acid- d_4	
L-Lactic acid- d_4	

Crystallisation support:

Support for large protein crystal growth of either protiated or deuterated proteins (including for testing with X-rays)