Preparing Aminoacid Solutions for cell free Tx-TL reactions

Andres Medina

Abstract

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Protocol

note

Step 1.

Preparing individual Aminoacid stock solutions in KOH

Step 2.

Take the given mass of each aminoacid into individual 5mL tubes.

Aminoacid	mg solid to take
Alanine	445.45
Arginine	644.6502
Asparagine	660.6
Aspartic acid	665.5
Cysteine	370.7496
Glutamic acid	735.65
Glutamine	447.219
Glycine	375.35
Histidine	775.75
Isoleucine	655.9
Leucine	401.4108
Lysine	447.3414
Methionine	456.5826
Phenylalanine	330.38
Proline	575.65
Serine	529.5
Threonine	595.6
Tryptophan	408.46
Tyrosine	554.4414

Valine	358.479

Add 1mL of 5M KOH to each of the individual tubes. Vortex to disolve and stock at 4 °C up for a month.

Preparing a stable aminoacid mix solution (17mM each aminoacid)

Step 3.

Aminoacid Stock solution in 5M KOH	µl to take
Alanine	136
Arginine	222
Asparagine	136
Aspartic acid	136
Cysteine	222
Glutamic acid	136
Glutamine	222
Glycine	136
Histidine	136
Isoleucine	136
Leucine	222
Lysine	222
Methionine	222
Phenylalanine	340
Proline	136
Serine	136
Threonine	136
Tryptophan	340
Tyrosine	222
Valine	222
TOTAL	**3816 µL**

Add 35084 µl of sterile water and 1100 µl of acetil acid (glacial) to the aminoacid mix. Vortex well and alicuote. Store at -20°C

Preparing a stable aminoacid mix solution (17mM each aminoacid)

Step 4.