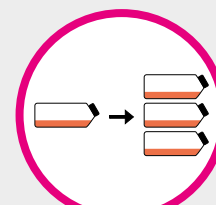


Reagents and raw materials for monoclonal antibodies



1. Mice immunization

Mice are immunized with an antigen, and subsequently, their blood is tested for antibody production.

Applications: ELISA for determining antibody titers.

2. Myeloma cells preparations

Myeloma cells, which are immortalized, can be fused with spleen cells to create hybridomas capable of unlimited growth. These myeloma cells are prepared for the fusion process.

3. Fusion

Myeloma cells are combined and fused to create hybridomas using polyethylene glycol (PEG), which facilitates the fusion of cell membranes.

4. Clone screening & picking

Clones are screened and chosen based on their antigen specificity and immunoglobulin class.

5. Functional characterization

Each potentially high-producing colony is confirmed, validated, and characterized (e.g., via ELISA) to assess its functionality.

6. Scale up & wean

Clones producing the desired antibodies are expanded in scale, and the selection agent(s) are gradually removed.

7. Expansion

Clones that produce the desired antibodies are expanded, typically using bioreactors or large flasks.

Reagents

ELISA reagents

Antigen coating buffer (e.g., carbonate-bicarbonate buffer)

Ingredients

131648 - Sodium Carbonate anhydrous (Reag. USP, Ph. Eur.) for analysis, ACS
131638 - Sodium Hydrogen Carbonate (Reag. USP) for analysis, ACS, ISO

Blocking buffer (e.g., BSA in PBS)

Ingredients

A0850 - Albumin (BSA), Fatty Acid-Free EIA and RIA grade
A2244 - Albumin (BSA) Fraction V (pH 5.2)

Reagents

Culturing media for myeloma cells

Ingredients

A8943 - Penicillin - Streptomycin (100X) for cell culture
A1538 - RPMI 1640 - Powder Medium

Reagents

Fusion reagents

142436 - Polyethylene Glycol 400 (BP, Ph. Eur.) pure, pharma grade

Reagents

ELISA kits & reagents

For Elisa Reagents see the step 1. Mice immunization

Cell culture media & plates for hybridomas

A9054 - DMEM/F12 (1:1) - Medium
A8943 - Penicillin - Streptomycin (100X) for cell culture
A1538 - RPMI 1640 - Powder Medium

Reagents

SDS-PAGE

Acrylamide/Bis-acrylamide gel reagents (e.g., 30% acrylamide/bis-acrylamide, APS, TEMED)

A3626 - Acrylamide - Solution (30%) - Mix 37.5 : 1 for molecular biology

A1148 - TEMED

Running buffer (Tris-glycine-SDS buffer)

Ingredients

A1067 - Glycine for molecular biology
A0675 - SDS - solution 20% for molecular biology
A1087 - Tris Hydrochloride for buffer solutions

Reagents

Serum-free media for cell culture (e.g., SFM, RPMI-1640 without serum)

A1538 - RPMI 1640 - Powder Medium

Protease inhibitors (e.g., PMSF, EDTA)

A3145 - EDTA solution pH 8.0 (0.5 M)
A4892 - EDTA solution pH 8.0 (0.5 M) for molecular biology
A0999 - PMSF BioChemica

Raw materials & Buffers

Buffer systems (e.g., PBS, Tris-HCl for salt and impurity removal)

A1025 - Bis-Tris for buffer solutions

141512 - di-Potassium Hydrogen Phosphate anhydrous pure pharma grade

141679 - di-Sodium Hydrogen Phosphate anhydrous (USP, BP, Ph. Eur.) pure, pharma grade

632786 - Octanoic Acid (BP, Ph. Eur., USP-NF, ChP) low endotoxin, IPEC grade

A0964 - PBS buffer (1X, Dulbecco's) - Powder

631632 - Sodium Acetate 3-hydrate (Ph. Eur, BP, USP) IPEC grade

Reagents and raw materials for monoclonal antibodies

1. Mice immunization

Reagents

... Blocking buffer
(e.g., BSA in PBS)

Ingredients

A1391 - Albumin (BSA)
Fraction V (pH 7.0)

A4344 - Albumin crude from
chicken egg

A0965 - PBS buffer (10X
Dulbecco's) - Powder

A0964 - PBS buffer (1X,
Dulbecco's) - Powder

A9202 - PBS tablets pH 7.2
(for 1 L)

A9201 - PBS tablets pH
7.4 (for 1 L) also available
(for 100 mL, 200 mL and
500 mL)

Substrate solution
(e.g., TMB substrate)

A3840 - 3,3',5,5'-
Tetramethylbenzidine
(TMB) BioChemica

2. Myeloma cells preparations

3. Fusion

4. Clone screening and picking

5. Functional characterization

Reagents

Molecular weight markers
(e.g., protein markers)

A8889 - Protein Marker VI
(10-245) prestained

Western blotting

A1089 - Acrylamide 2K
Standard grade, extrapure

A0850 - Albumin (BSA) EIA
and RIA grade

A2132 - Aprotinin
BioChemica (Serin
protease)

A4892 - EDTA solution
pH 8.0 (0.5 M) for
molecular biology

A2185 - Luminol

Mass spectrometry

Protein extraction and digestion
reagents (e.g., DTT, trypsin)

A1101 - DTT BioChemica

A2948 - DTT

A2948 - DTT Molecular
biology grade

A3668 - DTT solution 1 mol/l
(1 M) for molecular biology

A3964 - Trypsin from
bovine pancreas

A4148 - Trypsin 1 : 250 from
porcine pancreas

LC-MS solvents

701881 - Acetonitrile

701091 - Methanol

701074 - Water

6. Scale up and wean

7. Expansion

Raw materials & Buffers

636454 - Sodium Caprylate
(USP-NF, BP, Ph. Eur., ChP)
low endotoxin, IPEC grade

631659 - Sodium Chloride
low endotoxin, IPEC grade

Z92018 - Sodium di-
Hydrogen Phosphate
anhydrous (USP) low
endotoxin, pharma grade

Z41940 - Tris (USP, BP, Ph.
Eur.) low endotoxin pure,
pharma grade

633654 - Tris Hydrochloride
low endotoxin, pharma
grade

