

V. Materialien

1. Chemikalien

Chemikalien	Firma
30 % Acrylamid/Bisacrylamid	Bio-Rad, Hercules, CA, USA
Agarose (für DNA Gele)	Appligene, Illkirch, France
<i>AmpliTaq Gold™ DNA Polymerase</i>	Perkin Elmer, Rodgau-Jüdesheim, Germany
Bovines Serumalbumin (BSA)	Pierce, Rockford, IL, USA
<i>Bradford assay</i>	Bio-Rad, Hercules, CA, USA
4',6-Diamidino-2-Phenylindol-2HCL (DAPI)	Serva, Heidelberg, Germany
Dithiothreitol (DTT)	Invitrogen, Karlsruhe, Germany
<i>Dulbecco's MEM medium (DMEM)</i>	Invitrogen, Karlsruhe, Germany
DNA-Leiter 10kb (#SM0331)	MBI Fermentas, ST. Leon-Rot, Germany
DNase I	Roche Diagnostics, Basel, Switzerland
Eselserum (#017-00-121)	Dianova, Germany
Ethanol	Baker, Deventer, Holland
Fetales Kalbsserum (FCS)	Biochrom, Berlin, Germany
Fluoromount G	Southern Biotechnology Associates, Birmingham, Alabama, USA
Glycin	Roth, Karlsruhe, Germany
Hygromycin B	Roche Diagnostics, Basel, Switzerland
Isopropanol	Baker, Deventer, Holland
Methanol	Baker, Deventer, Holland
MgCl ₂	Roche Diagnostics, Basel, Switzerland
Magermilch	Sucofin, Zeven, Germany
Nukleotide (dATP, dCTP, dGTP, dTTP)	Amersham, Freiburg, Germany
10 x PCR Puffer	Roche Diagnostics, Basel, Switzerland
PCR Primer	TibMolBiol, Berlin, Germany
<i>Random hexanucleotide primers</i>	Invitrogen, Karlsruhe, Germany
<i>RNA-CLEAN</i>	Hybaid, Germany
RNA Inhibitor	Promega, Madison, WI, USA
6 x Proben Puffer (für DNA-Elektrophorese)	MBI Fermentas, St. Leon-Rot, Germany
<i>SuperScript reverse transcriptase II</i>	Invitrogen, Karlsruhe, Germany
<i>Super Signal West Pico</i>	Pierce, Rockford, IL, USA
SN-38	Aventis, Paris, France
N,N,N',N'-Tetramethylethylenediamin (TEMED, #35925)	Serva, Heidelberg, Germany

1,3,7-Trimethylxanthinhydrat (Coffein)	ICN, Aurora, Ohio, USA
Tris Hydrochlorid	Roth, Karlsruhe, Germany
Tris Ultrapur	ICN, Aurora, Ohio, USA
Trypsin (1:250, 2,5 % w/v)	Biochrom, Berlin, Germany

2. Lösungen

Lösungen	Komponenten
Lyse Puffer (Sato et al. Oncogene, 2002,21,1727–1738)	10 % Glycerin, 50 mM NaF, 137 mM NaCl, 12 mM β -Glycerophosphat, 20 mM Tris-HCL ph 7,5, 0,2 % <i>Nonidet P-40</i> (NP-40), 1,5 mM MgCl ₂ , 1 mM Orthovanadat, 1 mM EDTA, 10 μ g/ml Aprotinin, 1 mM PMSF
Lyse Puffer (RIPA III)	10 % Glycerin, 1 % Triton X, 50 mM NaF, 10 mM β -Glycerophosphat, 140 mM NaCl, 20 mM Tris-HCL ph 7,5, 1,5 mM MgCl ₂ , 1 mM Orthovanadat, 1 mM EGTA, 10 μ g/ml Aprotinin, 1 mM PMSF, 10 μ g/ml Pepstatin, 10 μ g/ml Leupeptin, 1 mM Benzamedin, 40 μ g/ml DNase
Phosphat gepuffertes Salz (PBS)	137 mM NaCl, 2,7 mM KCl, 8 mM Na ₂ HPO ₄ · 2 H ₂ O, 1,47 mM KH ₂ PO ₄ , 0,53 mM EDTA, pH 7,4
Tris gepuffertes Salz (TBS)	7,4 mM Tris, 43,5 mM Tris-HCl, 150,5 mM NaCl, pH 7,4–7,6
Tris Acetat-EDTA Puffer (TAE)	40 mM Tris-Acetat, 1 mM EDTA, pH 8
Tris-Glycin-Electrophorese-Puffer (Laufpuffer)	0,025 M Tris, 0,192 M Glycin, 0,1 % SDS w/v
4 x Sammelgelpuffer	0,496 M Tris Base, 1 M HCl, pH 6,8
5 x Trenngelpuffer	1,875 M Tris Base, 1 M HCl, pH 8,8
SDS	1 % Dodecylsulfat Natriumsalz
5 x Probenpuffer	5 % SDS w/v, 25 % Sucrose w/v, 49,5 mM Tris, 5 mM EDTA, 0,025 % Bromphenolblau, pH 6,8, 0,194 M DTT
Trenngel	3 % Acrylamid/Bisacrylamid, 0,375 M 5 x Trenngelpuffer, 0,1 % SDS, 0,1 % TEMED, 0,1 % APS

Sammelgel	3 % Acrylamid/Bisacrylamid, 0,124 M 4 x Sammelgelpuffer, 0,1 % SDS, 0,1 % TEMED, 0,1 % APS
Blotpuffer	25 mM Tris Base, 192 mM Glycin, 20 % Methanol

3. Reagenzsätze („Kits“)

Kit	Firma
<i>Cell Death Detection ELISA</i> (#1544675)	Roche Diagnostics, Basel, Switzerland
<i>OneStep RT-PCR kit</i>	Qiagen, Hilden, Germany
<i>QIAGEN Plasmid kit</i> (#12143)	Qiagen, Hilden, Germany

4. Instrumente

Instrumente	Firma
Agarose-Gel Elektrophorese Kammer	
<i>Mini-subTM DNA Cell</i>	Bio-Rad, Hercules, CA, USA
<i>Wide Mini-subTM DNA Cell</i>	Bio-Rad, Hercules, CA, USA
Waage	Sartorius, Göttingen, Germany Kern, Altstadt, Germany
Zellschaber (23 und 32 cm Längen)	Nunc, Roskilde, Denmark
Zentrifugen	
Tisch-Zentrifuge	Heraeus Sepatech, Hanau, Germany Jouan, Winchester, Virginia, USA Eppendorf, Hamburg, Germany
Cytospin-3-Zentrifuge	Shandon, Pittsburgh, PA, USA
Kühl-Zentrifuge	Sigma, Steinheim, Germany
Deckgläser	Menzel, Braunschweig, Germany
1 ml Röhrchen	Nunc, Roskilde, Denmark
15 ml Röhrchen	Nunc, Roskilde, Denmark
50 ml Röhrchen	Sarstedt, Nümbrecht, Germany
Küvetten	Pharmacia, Erlangen, Germany
Plastik-Küvetten für photometrische Protein-Konzentrationsbestimmungen	Brand, Wertheim, Germany
<i>ELISA Reader MR5000</i>	Dynatech, Denkendorf, Germany
FACScalibur	Becton Dickinson, Heidelberg, Germany
Film Kassetten	Kodak, Stuttgart, Germany
Filme	
BioMax MR 18 x 24 cm	Kodak, Stuttgart, Germany
T-Mat Plus DG 13 x 18 cm	Kodak, Stuttgart, Germany

Zellkulturflaschen (25, 80 und 185 cm ²)	Nunc, Roskilde, Denmark
Fluoreszenz Mikroskop BX60	Olympus, Hamburg, Germany
CO ₂ Inkubator	Heraeus Sepatech, Hanau, Germany
Hämozytometer	Brand, Wertheim, Germany
Lichtmikroskop Binokular Typ CK2	Olympus, Hamburg, Germany
Objekträger	Menzel, Braunschweig, Germany
Mikrowellengerät	Bosch, Berlin, Germany
<i>ModFit LT2 software</i>	Verty Software House, Topsham, ME, USA
Nichtsterile Latex-Handschuhe	Ansell, Münschen, Germany
Zuschnitte für Cytospins (25 x 75 mm/2 Löcher)	Schleicher und Schuell, Dassel, Germany
Pasteur Pipetten	Brand, Wertheim, Germany
Petrischalen (8,8, 22 und 56,7 cm ²)	Nunc, Roskilde, Denmark
Pipettboy	Integra Bioscience, Fernwald, Germany
Pipetten (10, 20, 100, 250 und 1.000 µl)	Eppendorf, Hamburg, Germany
Pipetten (1, 5, 10 und 25 ml)	BD Bioscience, Falcon, Le Pont De Claix, France
Pipettenspitzen (10 µl)	Eppendorf, Hamburg, Germany
Pipettenspitzen (100 µl)	Sarstedt, Nümbrecht, Germany
Pipettenspitzen (1.000 µl)	Brand, Wertheim, Germany
Polystyren Rundboden-Röhrchen (5 ml)	BD Bioscience, Falcon, Le Pont De Claix, France
Polyvinylidenfluorid Membran (PVDF)	Immobilon-P, Millipore, Eschborn, Germany