

Materials List for:

A Manual Small Molecule Screen Approaching High-throughput Using Zebrafish Embryos

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Materials

Name	Company	Catalog Number	Comments
0.1 - 10 µl natural pipet tips	USA Scientific	1111-3800	
1x E3			Generate using 50x E3 and DI water.
1x PBST			Generate 0.1% Tween-20 in 1x PBS.
10x PBS	American Bioanalytical	AB11072	
12-well staining dish	BD-Falcon	35-3225	
20x SSC	American Bioanalytical	AB13156	
24 well plate	BD-Falcon	35-3226	
4% PFA/1x PBS			Generate 4% PFA (w/v) in 1x PBS - boil then freeze and store at -20 °C.
48 well plate	CytoOne	CC7672-7548	
50x E3			Generate 16.5 mM CaCl ₂ , 16.5 mM MgSO ₄ , 250 mM NaCl, and 8.5 mM KCl in DI water.
96 deep well plate	VWR	100-11-940	
96 well plate sealing mat	VWR	10011-946	
anti-digoxigenin antibody	Roche	11-093-274-910	Keep at -20 °C.
BCIP stock	Sigma	B8503	Generate 50 mg/ml using 100% DMF - freeze then store at -20 °C.
block solution			Generate 50 ml using 10 ml BSA (10%), 5 ml FCS, and 35 ml MABT. (Thaw BSA and FCS at 37 °C.)
BSA (bovine serum albumin) stock	American Bioanalytical	AB00448	Generate 10% BSA by stirring BSA flakes in MAB at room temperature then freeze and store at -20 °C. (Keep unused BSA flakes at 4 °C.)
DIG/FLU labeled riboprobe in vitro transcription reaction reagents	Roche	11175025910; 11685619910	Consult the manufacturer procedure.
DMF (dimethylformaldehyde)	American Bioanalytical	AB00450	
DNase 1 inhibitor, 10x DNase 1 buffer	Roche	4716728001	
embryo incubation dish	Falcon	35-1005	
epT.I.P.S 20-300 µl	Eppendorf	22492284	
Ethanol (EtOH)	Sigma	E7023	Generate 50 ml of 70% EtOH with molecular grade H ₂ O and 100% EtOH then store at -20 °C.
FCS (fetal calf serum) stock	Invitrogen	16140089	Keep at -20 °C.

filter sterilization unit	Corning	430516	0.45 μ m CA / 1 L volume
fine forceps	Roboz	RS-1050	
flat-bottom microcentrifuge tube	VWR	87003-300; 87003-298	
Formamide	American Bioanalytical	AB00600	Keep at -20 °C.
glass basin 90 x 50	Kimax Kimble	23000	
glass pipette	VWR	14673-010	
glass vial	Wheaton	225012	
glycerol	Sigma	G7893	
glycine	Sigma	G8898	
glycogen	Roche	10901393001	
HYB+			Generate 50% formamide, 0.1% Tween-20, 5x SSC, 5 mg/ml yeast torula RNA, and 50 μ l/ μ l heparin
INT stock	Sigma	I8377	Generate 55 mg/ml using 70% DMF and 30% H ₂ O - freeze then store at -20 °C.
MAB			Generate by adding 55.0 g Trisma base, 8 ml of 1 M Tris-HCl pH 9.5, 23.2 g maleic acid, and 17.5 g NaCl to 1.5 L of deionized H ₂ O. Then fill with deionized H ₂ O to 2 L and autoclave.
MABT			Generate 0.1% Tween-20 in MAB
MeOH	Sigma	34860-4L	
mesh tea strainer	English Tea Store	SKU #ASTR_KEN, MPN#1705	
molecular grade distilled water	Mediatech	25-055-CM	
multi 8-channel pipette 0.5 - 10 μ l	Eppendorf	3122000.019	
multi 8-channel pipette 30 - 300 μ l	Eppendorf	3122000.051	
nanodrop	Thermo	ND-2000c	
NBT stock	Sigma	N6876	Generate 50 mg/ml using 70% DMF and 20% H ₂ O - freeze then store at -20 °C.
paraformaldehyde	Electron Microscopy Services	19210	
PCR-Film adhesive	Eppendorf	30127.48	
plate container (Pencil Box)	Sterilite	1722	
pre-staining buffer			Generate 0.1% Tween-20, 50 mM MgCl ₂ , 100 mM NaCl, and 100 mM Tris pH 9.5. (Make fresh for use each time.)
Pronase	Roche	11459643001	Generate 50 mg/ml using E3, freeze then store at -20 °C.
Proteinase K	Roche	03-115-879-001	Generate 10 mg/ml in DI water then freeze and store at -20 °C.
RNase 1 inhibitor	Roche	3335399001	
rubber bulb	Fisherbrand Fisher Scientific	03-448-22	
staining solution-purple	N/A	N/A	Generate using 45 μ l of NBT and 35 μ l of BCIP for every 10 ml needed in pre-staining buffer.
staining solution-red			Generate using 31.5 μ l of INT and 35 μ l of BCIP for every 10 ml needed in pre-staining buffer.
stereomicroscope	Nikon	SMZ645, SMZ1000	

T3 RNA polymerase	Roche	11031171001	
T7 RNA polymerase	Roche	10881775001	
transfer pipet	Samco	202, 204	
Tween-20 stock	American Bioanalytical	AB02038	
waterbath	Thermo	51221073	(Model # 2831)