Buffers & Solutions

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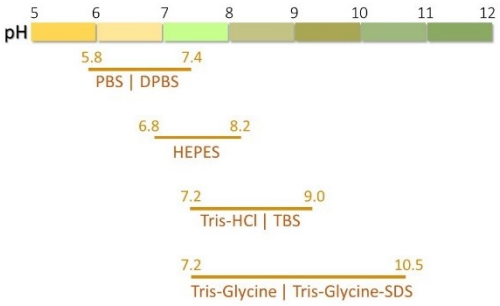
BUFFERS, SOLUTIONS & WATERS

Wide range of buffers and solutions, commonly used **for molecular and cellular biology applications**. These are manufactured with highly purified analytical-grade chemicals and comply with strict quality standards, batch-to-batch consistency, guaranteed pH, and they are free of DNases, RNases and proteins contamination.



GENERAL BUFFERS

Tris Buffers

Tris Base

Tris (hydroxymethyl)-aminomethane hydrochloride $(CH_2OH)_3CNH_2$) (CAS 77-86-1) is a high quality chemical component of Tris buffers.

Tris-HCl Buffers

Tris-HCl buffers are high-quality buffering solutions prepared using ultra-pure components and subjected to rigorous quality control measures to ensure lot-to-lot consistency. They are widely used in various biochemical and molecular biology applications due to their excellent buffering capacity and stability. Tris-HCl buffers are available in different molarities, pH values, and formulations with additives such as NaCl, EDTA, Tween-20® or casein. Additionally, Tris buffers do not inhibit alkaline phosphatase activity, making them suitable for enzyme-based assays with different readout, immunoassays, protein purification, and electrophoresis.

REFERENCES	DESCRIPTION	COMPOSITION	FORMAT
TBR0160	TRIS BASE		1 kg
TBB0330	TRIS-HCl BUFFER, 1M, pH 7.4	1 M Tris-HCl, pH 7.4	1 L
TBB0331	TRIS-HCl BUFFER, 1M, pH 8.0	1 M Tris-HCl, pH 8.0	1 L
TBB0332	TRIS-HCl BUFFER, 1.5M, pH 8.8	1.5 M Tris-HCl, pH 8.8	1 L
TBB0383	TRIS-HCl 10 mM, NaCl 50 mM BUFFER, pH 8	10 mM Tris-HCl, 50 mM NaCl pH 8.0	1 L
TBB0384	TRIS-HCl 50 mM, NaCl 100 mM BUFFER, pH 8	50 mM Tris-HCl, 100 mM NaCl pH 8.0	1 L
TBB0341	TRIS BUFFER SALINE (TBS) 10x, pH 7.6	500 mM Tris-HCl, 1.5M NaCl	1 L
TBB0342	TRIS BUFFER SALINE (TBS) 10x, pH 7.6	500 mM Tris-HCl, 1.5M NaCl	4 x 1L
TBB0103	TRIS-EDTA BUFFER, 10x, pH 7.5	100 mM Tris-HCl, 10 mM EDTA	1 L
TBB0353	TRIS-EDTA BUFFER, 1x, pH 8	10 mM Tris-HCl, 1 mM EDTA	0.1 L
TBB0354	TRIS-EDTA BUFFER, 1x, pH 8	10 mM Tris-HCl, 1 mM EDTA	10 x 1.5mL
TBB0343	TRIS BUFFER SALINE TWEEN®- 20 (TBS-T), 20x, pH 7.4	1M Tris-HCl, 3 M NaCl, 2% Tween®-20	1 L
TBB0344	TRIS BUFFER SALINE TWEEN®- 20 (TBS-T), 20x, pH 7.4	1M Tris-HCl, 3 M NaCl, 2% Tween®-20	4 x 1 L
TBB0345	TRIS BUFFER SALINE CASEIN 1%, 1x , pH 7.6	50 mM Tris-HCl, 150 mM NaCl, 1% Casein	1 L
TBB0346	TRIS BUFFER SALINE CASEIN 1%, , pH 7.6	50 mM Tris-HCl, 150 mM NaCl, 1% Casein	0.5 L
TBB0347	TRIS BUFFER SALINE CASEIN 1%, , pH 7.6	50 mM Tris-HCl, 150 mM NaCl, 1% Casein	0.1 L

Tris-Glycine Buffers

Tris-Glycine Buffers are high quality and reliable buffers used in polyacrilamide gel electrophoresis for protein separation. Tris-Glycine can be used as running buffer in native or denaturing protein electrophoresis to resolve proteins by their size.

Please see Chapter 7. Protein Research

Phosphate Buffers

Phosphate Buffer Saline (PBS)

PBS is a widely used buffer solution formulated with high-purity components and subjected to strict quality control to ensure batch-to-batch consistency. PBS maintains physiological pH and osmolarity, making it ideal for a variety of biological and biochemical applications. It is available in different formats and can be supplemented with additives such as calcium (Ca^{2+}), magnesium (Mg^{2+}), and potassium (K^{+}) to suit specific experimental needs. PBS is frequently used for cell culture, molecular biology, immunoassays, and as a washing or dilution buffer in various laboratory protocols. Additionally, PBS is non-toxic to cells and does not interfere with most enzymatic reactions, making it a versatile and essential reagent in life sciences research.

REFERENCES	DESCRIPTION	COMPOSICIÓN	FORMAT
TBB0360	PBS 1x, pH 7.4	10 mM Na_2HPO_4, 1.8 mM KH_2PO_4, 2.7 mM KCl, 137 mM NaCl	1 L
TBB0361	PBS 1x, pH 7.4		4 x 1 L
TBB0362	PBS 10x, pH 7.4	100 mM Na_2HPO_4, 18 mM KH_2PO_4, 27 mM KCl, 1.37 M NaCl	1 L
TBB0363	PBS 10x, pH 7.4		4 x 1 L
TBB0364	PBS 20x, pH 7.4	200 mM Na_2HPO_4, 36 mM KH_2PO_4, 54 mM KCl, 2.74 M NaCl	1 L
TBB0365	PBS 20x, pH 7.4		4 x 1 L
TBB0600	PBS 1x, pH 7.4 (Powder, 10x 1L)	10 mM Na_2HPO_4, 1.8 mM KH_2PO_4, 2.7 mM KCl, 137 mM NaCl	10 pouches
TBB0601	PBS 1x, pH 7.4 (Powder, 50x 1L)		50 pouches
TBB0602	PBS 1x, pH 7.4 (Powder, 100x 1L)		100 pouches
TBB0372	PBS - TWEEN® 20, 1x, pH 7.4	10 mM Na_2HPO_4, 1.8 mM KH_2PO_4, 2.7 mM KCl, 137 mM NaCl, 0.05% Tween®-20	1 L
TBB0373	PBS - TWEEN® 20, 1x, pH 7.4		4 x 1 L
TBB0374	PBS - TWEEN™ 20, 10x, pH 7.4	100 mM Na_2HPO_4, 18 mM KH_2PO_4, 27 mM KCl, 1.37 M NaCl, 0.5% Tween®-20	1 L
TBB0375	PBS - TWEEN™ 20, 10x, pH 7.4		4 x 1 L
TBB0376	PBS - TWEEN® 20, 20x, pH 7.4	200 mM Na_2HPO_4, 36 mM KH_2PO_4, 54 mM KCl, 2.74 M NaCl, 1% Tween®-20	1 L
TBB0377	PBS - TWEEN® 20, 20x, pH 7.4		4 x 1L
TBB0605	PBS-TWEEN® 20, 1x, pH 7.4 (Powder, 10x 1L)	10 mM Na_2HPO_4, 1.8 mM KH_2PO_4, 2.7 mM KCl, 137 mM NaCl, 0.05% Tween®-20	10 pouches
TBB0606	PBS-TWEEN® 20, 1x, pH 7.4 (Powder, 50x 1L)		50 pouches
TBB0607	PBS-TWEEN®20, 1x, pH 7.4 (Powder, 100x 1L)		100 pouches
TBB0378	PBS-CASEIN 1% , pH 7.4	10 mM Na_2HPO_4, 1.8 mM KH_2PO_4, 2.7 mM KCl, 137 mM NaCl, 1% Casein 1%	1L
TBB0379	PBS-CASEIN 1% , pH 7.4		0.5 L
TBB0380	PBS-CASEIN 1% , pH 7.4		0.1 L
TBB0405	DPBS 1x, without calcium and magnesium	1.47 mM KH_2PO_4, 8.1 mM Na_2HPO_4, 137 mM NaCl, 2.7 mM KCl 2.7 mM, pH 7.3	0.5 L
TBB0406	DPBS 1x, without calcium and magnesium		1 L
TBB0407	DPBS 10x, without calcium and magnesium		0.5L
TBB0408	DPBS 1x, with calcium and magnesium	1.47 mM KH_2PO_4, 8.1 mM Na_2HPO_4, 137 mM NaCl, 2.7 mM KCl, 0.9 mM $CaCl_2$, 0.5 mM $MgCl_2$, pH 7.3	0.5 L
TBB0409	DPBS 1x, with calcium and magnesium		1 L
TBB0410	DPBS 10x, with calcium and magnesium	14.7 mM KH_2PO_4, 81 mM Na_2HPO_4, 1.37 M NaCl, 27 mM KCl, 9 mM $CaCl_2$, 5 mM $MgCl_2$, pH 7.3	0.5 L

HEPES Buffer

HEPES Buffer is a high-quality biological buffer prepared with ultra-pure components and subjected to stringent quality control to ensure lot-to-lot consistency. It is widely used in cell culture, biochemical, and molecular biology applications due to its excellent buffering capacity in the physiological pH range (6.8–8.2). Unlike phosphate-based buffers, HEPES does not interfere with enzymatic reactions or metal ion-dependent processes, making it ideal for use in protein purification, enzymatic assays, and electrophysiology experiments. HEPES buffer is available in various concentrations and can be supplemented with additives such as NaCl or glucose to suit specific experimental needs. Additionally, it provides superior pH stability compared to bicarbonate buffers, making it a preferred choice for maintaining physiological conditions in cell culture and biological research.

REFERENCES	DESCRIPTION	FORMAT
TBB0387	**HEPES BUFFER, 1 M, pH 7.5** *(Cell Biology Grade)*	100 mL
TBB0388	**HEPES BUFFER, 1 M, pH 7.5**	500 mL

Citrate Buffer

Saline Sodium Citrate Buffer (SSC)

Saline-Sodium Citrate (SSC) Buffer is a high-quality hybridization buffer formulated with high-purity components and subjected to rigorous quality control. It is widely used in molecular biology, particularly in nucleic acid hybridization techniques such as Southern and Northern blotting, *in situ* hybridization, and microarray applications. SSC buffer is available at 20x and it can be adjusted with additives to optimize hybridization stringency. Its buffering capacity helps maintain nucleic acid stability and enhances probe-target interactions. Additionally, SSC buffer is frequently used for washing steps in hybridization protocols to control the stringency of DNA or RNA binding.

REFERENCES	DESCRIPTION	FORMAT
TBB0357	**SCC, SALINE SODIUM CITRATE BUFFER, 20x**	1L
TBB0358	**SCC, SALINE SODIUM CITRATE BUFFER, 20x**	4 x 1L

SOLUTIONS

REFERENCES	DESCRIPTION	FORMAT
TBB0350	EDTA SOLUTION 0.5M, pH 8.0	0.1L
TBB0351	EDTA SOLUTION 0.5M, pH 8.0	0.5L
TBB0352	EDTA SOLUTION 0.5M, pH 8.0	4 x 0.1L
TBR0144	SDS SOLUTION 20%	1 L
TBR0145	SDS SOLUTION 20%	0.1 L
TBR0146	SDS SOLUTION 10%	1 L
TBR0147	SDS SOLUTION 10%	0.1 L
TBR0215	$MgCl_2$ 25mM	10 x 1.5 mL
TBR0216	$MgCl_2$ 25mM	100 mL
TBR0217	$MgCl_2$ 50mM	10 x 1.5 mL
TBR0218	$MgCl_2$ 1M	100 mL
TBR0104	TCEP SOLUTION	5 x 1.5 mL
TBR0107	2-MERCAPTOETHANOL 99% PURE	25mL
TBR0108	2-MERCAPTOETHANOL SOLUTION, 50 mM	20 mL
TBR0109	2-MERCAPTOETHANOL SOLUTION, 50 mM	100 mL
TBR0259	DMSO, *Molecular Biology Grade*	10 x 1.5 mL
TBR0260	DMSO, *Molecular Biology Grade*	50 mL
TBR0261	DMSO, *Molecular Biology Grade*	100 mL
TBR0151	DTT, DITHIOTHREITOL	10 g

WATERS

REFERENCES	DESCRIPTION	FORMAT
TBB0297	WATER, nuclease free	100 mL
TBB0298	WATER, nuclease free	25 mL
TBB0299	WATER, nuclease free	5 x 10 mL
TBB0300	WATER, nuclease free	1 L
TBB0301	WATER, nuclease free	0.5 L
TBB0303	PCR GRADE WATER	10 x 1.5 mL
TBB0304	WATER DEPC TREATED	1 L
TBB0305	WATER DEPC TREATED	0.5 L
TBB0306	WATER DEPC TREATED	5 x 1.5 mL