



DNA & RNA Electrophoresis

DNA & RNA ELECTROPHORESIS

ELECTROPHORESIS BUFFER

	TAE Buffer	TBE Buffer
Composition (10x)	400 mM Tris 200 mM Acetic Acid 10 mM EDTA	0.89M Tris 0.89M Boric Acid 0.02M EDTA
pH	8.3	8.3
Voltage	Low (<150V)	High (>2000V)
Conductivity	+++	+
Buffering Capacity	+	+++
Overheated	+	+++
Resolution	High for long fragments	High for short fragments
Large fragments separation (>3kb)	++	+
Small fragments separation (<0.3kb)	+	++
Suitable for DNA gel extraction	++	-
Enzymatic inhibition	-	++
Toxicity	-	++



TBE, Tris Borate-EDTA Buffer

Tris-Borate-EDTA Buffer pH 8.3 is a high quality buffer to be used in agarose or acrylamide gels. It is supplied as sterile concentrated solution (10x or 5x) or 1x in powder presentation.

TAE, Tris Acetate-EDTA Buffer

Tris-Acetate-EDTA Buffer (TAE) is a high-quality buffer to be used in agarose gel preparation and as electrophoresis running buffer. It is supplied as sterile concentrated solution(10x or 50x) that must be diluted at 1x before its use or in powder format. TAE 1x is the most commonly buffer used in molecular biology because it doesn't interfere with downstream applications.

REFERENCES	DESCRIPTION	FORMAT
TBB0348	TBE BUFFER 10x	1 L
TBB0349	TBE BUFFER 10x	4 x 1L
TBB0422	TBE BUFFER 5x	5 x 1L
TBB0618	TBE BUFFER 1x, Powder 10x 1L	10 pouches
TBB0619	TBE BUFFER 1x, Powder 50x 1L	50 pouches

REFERENCES	DESCRIPTION	FORMAT
TBB0355	TAE BUFFER 10x	1 L
TBB0356	TAE BUFFER 10x	4 x 1L
TBB0359	TAE BUFFER 50x	1 L
TBB0622	TAE BUFFER 1x, Powder 10x 1L	10 pouches
TBB0623	TAE BUFFER 1x, Powder 50x 1L	50 pouches

AGAROSSES

High-Q™ Agarose LE (low electroendosmosis)

High-Q™ Agarose LE is a high quality agarose specifically validated for genetic and molecular biology applications. It is a linear heteropolysaccharide composed of alternating D-galactose and 3,6-anhydro-L-galactopyranose units linked by α -(1→3) and β -(1→4) glycosidic bonds. This agarose, with low electroendosmosis values (0.05-0.13) and high mechanical strength ($1\% \geq 1200 \text{ g/cm}^2$), is the standard agarose used in DNA electrophoresis.

Agarose Gel (%)	Separation Range (bp)
0.5	1,000-3,0000
0.7	800-12,000
1.0	500-10,000
1.2	400-7,000
1.4	200-4,000
2.0	50-2,000

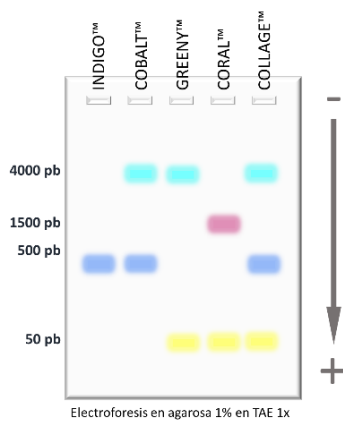
High-Q™ Agarose LM (low melting)

REFERENCES	DESCRIPTION	FORMAT
TBR0120		500 g
TBR0121	HIGH-Q™ AGAROSE LE	250 g
TBR0122		100 g
TBR0305	HIGH-Q™ AGAROSE LM	50 g



LOADING BUFFERS

Suitable solutions for monitoring nucleic acid migration. For this purpose, we offer a standard series of loading buffers and the Intense™ serie, which allows you to observe your DNA fragments with greater clarity.

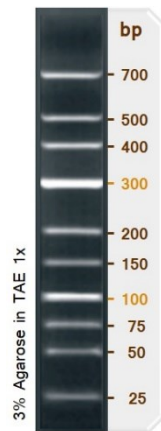


REFERENCES	DESCRIPTION	FORMAT
TBB0320	INDIGO™ LOADING BUFFER, 6x	5 x 1 mL
TBB0321	COBALT™ LOADING BUFFER, 6x	5 x 1 mL
TBB0322	GREENY™ LOADING BUFFER, 6x	5 x 1 mL
TBB0323	CORAL™ LOADING BUFFER, 6x	5 x 1 mL
TBB0324	COLLAGE™ LOADING BUFFER, 6x	5 x 1 mL
TBB0325	INTENSE™ INDIGO™ LOADING BUFFER, 6x	5 x 1 mL
TBB0326	INTENSE™ COBALT™ LOADING BUFFER, 6x	5 x 1 mL
TBB0327	INTENSE™ GREENY™ LOADING BUFFER, 6x	5 x 1 mL
TBB0328	INTENSE™ CORAL™ LOADING BUFFER, 6x	5 x 1 mL
TBB0329	INTENSE™ COLLAGE™ LOADING BUFFER, 6x	5 x 1 mL

LADDERS

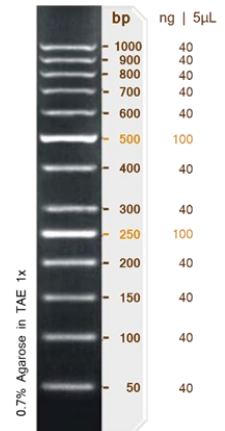
TIARIS™ Ruler 25-700 pb

Suitable for sizing DNA fragments from 25-700 bp. Composed of 10 linear individual DNA fragments, included two visual references.



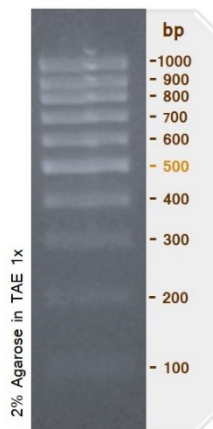
TIARIS™ Ruler 50-1.000 pb

Suitable for sizing DNA fragments from 50-1000 bp. Composed of 13 linear individual DNA fragments, included two visual references.



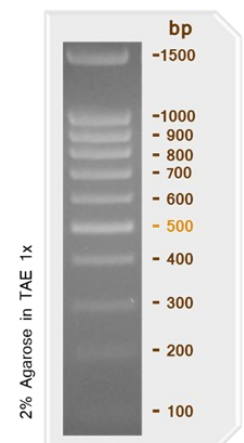
TIARIS™ Ruler 100-1.000 bp

Suitable for sizing DNA fragments from 100-1000 bp. Composed of 10 linear individual DNA fragments, included one visual references at 500 bp band.



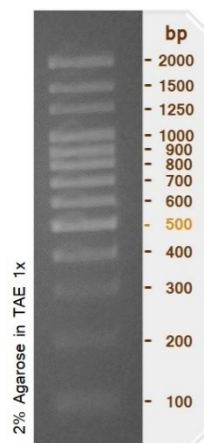
TIARIS™ Ruler 100-1500 bp

Suitable for sizing DNA fragments from 100-1500 bp. Composed of 11 linear individual DNA fragments, included one visual references.



TIARIS™ Ruler 100-2000 bp

Suitable for sizing DNA fragments from 100-2000 bp. Composed of 13 linear individual DNA fragments, included one visual references at 500 bp band.



REFERENCES	DESCRIPTION	FORMAT
TBR0235	TIARIS™ RULER 25-700 bp	0.5 mL
TBR0236	TIARIS™ RULER 25-700 bp	5 x 0.5 mL
TBR0231	TIARIS™ RULER 50-1000 bp	0.5 mL
TBR0232	TIARIS™ RULER 50-1000 bp	5 x 0.5 mL
TBR0237	TIARIS™ RULER 100-1000 bp	0.5 mL
TBR0238	TIARIS™ RULER 100-1000 bp	5 x 0.5 mL
TBR0241	TIARIS™ RULER 100-1500 bp	0.5 mL
TBR0242	TIARIS™ RULER 100-1500 bp	5 x 0.5 mL
TBR0239	TIARIS™ RULER 100-2000 bp	0.5 mL
TBR0240	TIARIS™ RULER 100-2000 bp	5 x 0.5 mL
TBR0283	TIARIS™ λ-HindIII	0.5 mL

All ladders are supplied at 0.1 µg/µL

GEL STAINS



	DETECTION RANGE	READOUT	
		UV LIGHT	BLUE LIGHT
ETHIDIUM BROMIDE SOLUTION 1%	0.5-5.0 ng	✓	X
TIARISTAIN™ GREEN SAFE	0.5-5.0 ng	✓	✓
TIARISTAIN™ DIRECT GREEN SAFE	0.1-1.0 ng	✓	✓

Ethidium Bromide Solution, 1%

It is a fluorescent dye used for its ability to intercalate between the base pairs of DNA and RNA molecules forming relatively stable complexes with markedly increased fluorescence.

TIARISTAIN™ GREEN SAFE, 20000X

It is a new non-carcinogenic formulation to stain nucleic acids in agarose and polyacrylamide gels. It has a strong excitation peak at 485 nm enabling the use of less DNA destructive blue light instead UV light. Also the dye has excitation peaks in the ultraviolet range.



TIARISTAIN™ DIRECT GREEN SAFE

It is a convenient formulation designed to be added directly to your sample and perform electrophoresis. It is a non-carcinogenic ultrasensitive dye with excitation peaks in blue and ultraviolet range.

REFERENCES	DESCRIPTION	FORMAT
TBR0224	ETHIDIUM BROMIDE SOLUTION 1%	2 x 5 mL
TBR0226	TIARISTAIN™ GREEN SAFE, 20000X	1 mL
TBR0286	TIARISTAIN™ DIRECT GREEN SAFE	1 mL

