

# High Range DNA Ladder

Range: 200 bp – 12000 bp

Cat. No.: A610141

250 lanes of 2 μl

-	High Range DNA Ladder
ID No.	5401100
Cap colour	Black
Content	1 x 0.5 ml

A610141

## **Features and General Description**

High Range DNA Ladder is a broad range dsDNA ladder with bands from 200 bp to 12000 bp (figure 1).

The ladder can be used to quantitate the amount of DNA in a sample since the mass of DNA in each band in the ladder has been calibrated to range from 6 to 40 ng DNA.

The ladder is supplied in loading buffer, ready-to-use on agarose and polyacrylamide gels. It is suitable with TBE, TAE, SB and LB electrophoresis systems.

### Suggestions for use of High Range DNA Ladder

- Important: Mix ladder briefly before use. Do not heat the ladder.
- Load 1 µl to 5 µl of ladder per lane (for gel wells of ~5 10 mm width)
- Agarose gel electrophoresis: Prepare 0.5-1% gel. The dye should migrate 60 70% the length of the gel.
- Polyacrylamide gel electrophoresis: Prepare 8% gel. The dye should migrate approx. 90% the length of the gel.
- Ethidium bromide (0.5 μg/ml) is the recommended gel stain.

### Storage, Stability and Shipment

High Range DNA ladder may be kept safely at room temperature for at least 3 months from date of shipment. Ladders are guaranteed for 12 months when stored at 4°C. Aliquot product if necessary to avoid repeated freezing and thawing cycles.

Shipped at ambient temperature. For long term storage, keep the loading buffer at -20  $^\circ C$  for up to 3 years.

#### **Quality control**

Agarose gel analysis shows that all bands are present at the expected location and band intensity.

	bp		ng/band	1
]]	12 000 8 000	60 80	24 32	12 16
	6 000 5 000 4 000	60 50 40	24 20 16	12 10 8
	3 000 2 500 2 000	30 25 20	12 10 8	6 5 4
hermond	1 500	15	6	3
-	1 000	100	40	20
-	800	80	32	16
-	600	60	24	12
-	400	40	16	8
-	200	20	8	4
		5 µl	2 µl	1 µl

Figure 1: High Range DNA Ladder. 2  $\mu I$  High Range DNA Ladder was loaded on a 0.5 % agarose in 1x TAE and stained with ethidium bromide.

#### **Related Products**

DNA Ladders	Cat. No.
Low Range DNA Ladder: 100 -1000 bp. 250 lanes	A610241
PCR DNA Ladder: 100 -3000 bp. 250 lanes	A610341
Iqon Mini DNA Ladder: 100 -500 bp. 100 lanes	A610441
Iqon Low DNA Ladder: 100 -1000 bp. 100 lanes	A610541
Iqon PCR Ladder: 100 -3000 bp. 100 lanes	A610641

Loading Buffers	Cat. No.
5x Loading Buffer Red, 5 x 1 ml	A608104
5x Loading Buffer Blue, 5 x 1 ml	A608204
5x Loading Buffer Orange, 5 x 1 ml	A608304
5x Loading Buffer Cyan, 5 x 1 ml	A608404

Ultrapure dNTPs*	Cat. No.
dNTP Mix 40 mM (2 x 500 µl): 10 mM each dA, dC, dG, dT	A502004
dNTP Set, 100 mM each: 250 μl of each dA, dC, dG and dT	A511104
*Other concentrations and Single dNTPs are available.	

PCR Grade Water	Cat. No.
6 x 5 ml	A360056
AQ90 High Fidelity DNA Polymerase 2 U/µl*	Cat. No.
With 10x AQ90 Buffer – 500 U	A457403
* Available in different size ranges.	
Taq Polymerase (500 units) *	Cat. No.
Taq DNA Polymerase 5 U/μl	A110003
with 10x Ammonium Buffer	A111103
Hot Start Polymerase (500 units) *	Cat. No.

\*Available in kits including one or two buffers (Ammonium Buffer, Standard Buffer or Combination Buffer). Available in different size ranges.

AQ90 High Fidelity DNA Polymerase 2x Master Mix*	Cat. No.
100 reactions	A470701

* Available in different size ranges.	
Taq Master Mixes (500 x 50 μl reactions) *	Cat. No.
2x Master Mix, 1.5 mM MgCl <sub>2</sub> final concentration	A140303
2x Master Mix RED, 1.5 mM MgCl <sub>2</sub> final concentration	A180303
TEMPase Hot Start Master Mixes (500 x 50 $\mu$ l reactions) *	Cat. No.
<b>TEMPase Hot Start Master Mixes (500 x 50 μl reactions) *</b> 2x Master Mix A**, 1.5 mM MgCl <sub>2</sub> final concentration	Cat. No. A230303
, , ,	

A is Ammonium Buffer based, also available as Mix C based on Combination Buffer. Available in different size ranges

Real-time PCR Master Mixes (400 x 25 µl reactions)	Cat. No.
RealQ Plus 2x Master Mix for probe,	
<ul> <li>without ROX<sup>™</sup></li> </ul>	A313402
<ul> <li>with low ROX<sup>™</sup></li> </ul>	A314402
<ul> <li>with high ROX<sup>™</sup></li> </ul>	A315402
RealQ Plus 2x Master Mix Green	
<ul> <li>without ROX<sup>™</sup></li> </ul>	A323402
<ul> <li>with low ROX<sup>™</sup></li> </ul>	A324402
<ul> <li>with high ROX<sup>™</sup></li> </ul>	A325402

For Research Use Only. Not for use in diagnostics procedures.

Other product sizes, combinations and customized solutions are available. Please look at www.ampliqon.com or ask for our complete product list for PCR Enzymes. For customized solutions please contact us.

Made in Denmark

bp

3 000

2 000

1 500

1 000

700

500

300

100

ng/band

10

10

10

30

10

10

10

10

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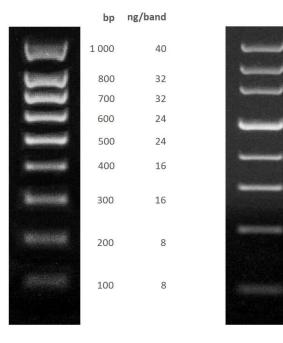
# The Ampliqon DNA Ladders

TEMPase Hot Start DNA Polymerase, 5 U/µl

• with 10x Ammonium Buffer

	bp	ng/band
U	12 000 8 000	24 32
	6 000 5 000	24 20
<u> </u>	4 000	16
	3 000 2 500 2 000	12 10 8
Second	1 500	6
-	1 000	40
-	800	32
-	600	24
<b>Mercensel</b>	400	16
	200	8

**High Range DNA Ladder** 



Low Range DNA Ladder

A220003

A221103

