

**PRODUCT DATA SHEET**

Name	Taq AB Mastermix	
REF	Quantity of reactions with volume 50 µl	Components
Taq AB Mastermix		
<b>19-04</b>	25	2X Taq AB Mastermix : 1x625 µl H <sub>2</sub> O, <i>nuclease-free</i> : 1x625 µl
	200	2X Taq AB Mastermix : 4x1250 µl H <sub>2</sub> O, <i>nuclease-free</i> : 4x1250 µl
	1000	2X Taq AB Mastermix : 20x1250 µl H <sub>2</sub> O, <i>nuclease-free</i> : 20x1250 µl
Taq AB Mastermix (Green)		
<b>19-04-g</b>	25	2X Taq AB Mastermix (Green): 1x625 µl H <sub>2</sub> O, <i>nuclease-free</i> : 1x625 µl
	200	2X Taq AB Mastermix (Green): 4x1250 µl H <sub>2</sub> O, <i>nuclease-free</i> : 4x1250 µl
	1000	2X Taq AB Mastermix (Green): 20x1250 µl H <sub>2</sub> O, <i>nuclease-free</i> : 20x1250 µl

**Composition**
**2X Taq AB Mastermix:**

- Taq AB DNA Polymerase
- PCR enhancers
- 2X PCR Buffer
- dATP, dCTP, dGTP, dTTP no 0,4mM each (0,2 mM in 1X mix)
- 7 mM Mg<sup>2+</sup> (corresponds to 3,5 mM Mg<sup>2+</sup> in 1X mix)

**2X TaqM Mastermix (Green):**

- TaqM DNA Polymerase
- PCR enhancers
- Dencity component
- 2X PCR Buffer with blue and orange tracer dye;
- dATP, dCTP, dGTP, dTTP no 0,4mM each (0,2 mM in 1X mix);
- 6 mM Mg<sup>2+</sup> (corresponds to 3,0 mM Mg<sup>2+</sup> in 1X mix)

**Preparation**

2X Taq AB - final volume 50 µl (optional):

Mastermix	25 µl
Primer 1	0,5-1 µM
Primer 2	0,5-1 µM
Probe (optional)	0,25-0,5 µM
DNA template	10 pg – 1 µg
H <sub>2</sub> O, <i>nuclease-free</i>	up to 50 µl

**Recommended amplification cycle for Real-Time PCR**

Stage	Temperature °C	Data collection	Time	Number of cycles
Hold	95	-	3 min	1
Cycling	95	-	10 s	45
	Tm -5	+	20 s	

**Transport**

Max. 7 days at room temperature

**Storage**

Store at -18 ... -30°C

Mix retains its properties after 10 freeze-thaw cycles

**Shelf life**

2 years

## Description

**Taq AB Mastermix** – is a 2X solution of Taq AB DNA Polymerase, stabilizers, PCR enhancers and all of the components required for PCR, except DNA template and oligonucleotides. This pre-mixed formulation saves time and reduces contamination due to a reduced number of pipetting steps required for PCR set up.

**Taq AB Mastermix (Green)** – is a 2X solution of Taq AB DNA Polymerase, stabilizers and all of the components required for PCR, except DNA template and oligonucleotides. Additionally PCR buffer contains a compound that increases sample density so that samples sink easily into wells of an agarose gel. The master-mix also contains two dyes (blue and orange) that separate to allow easy monitoring PCR products during electrophoresis. The blue dye migrates with  $\approx 400$  bp DNA fragments in a 1% agarose gel and orange migrates faster than  $\approx 20$  bp DNA fragments. This pre-mixed formulation saves time and reduces contamination due to a reduced number of pipetting steps required for PCR set up. Taq AB Mastermix (green) is suitable for direct-to-gel analysis after amplification.

- The basis of the Mastermix is is **Taq AB** polymerase. **Taq AB** polymerase is a highly purified recombinant Taq DNA polymerase enzyme blocked by two antibodies, which provides a highly effective hot start that enhances the specificity and sensitivity of PCR. The functional activity of the enzyme is restored during **3 minute incubation at 95°C**. It provides high yield of PCR products from different DNA templates.