Detection of PCR-Products

Comparison of the Agarose Gel and Milenia® HybriDetect

		Agarose Gel	Milenia® HybriDetect
Time	Preparation	Preparation of Running Buffer 5 min Weigh and Boil Agarose 5 min Allow Agarose to solidify app. 30 min Overload with Gel Buffer 1 min Load Gel app. 5 min	Label Strip Pipet Running Buffer app. 5 min Transfer Sample to Strip
	Incubation Time Visualization	Run Gel app. 1 h Visualization app. 10 min	Run Strip 5 min Visualization app. 2 min
	Total Time	**app. 1 to 2 h**	**app. 15 min**
Additional Items Required	Instruments	Pipets, Scale, Microwave, Power Supply, Electrophoresis Chamber, Gel-Visualization Device, UV-Table	Pipets, Pen, Camera / Smart Phone
	Reagents	Running Buffer (TBE or TAE) Loading Buffer Ethidium bromide	Strips (MGHD1/MGHD2) Running Buffer (MGCB/MGCB2)
	Sources of Danger	Electric Power UV-Light Ethidium bromide	none
	Total	**many**	**few**
Price	Instruments	High Investment Costs	Low Investment Costs
	Primers	Unlabeled Primers ➔ Low Costs	Labeled Primers ➔ Higher Costs (app. + 30 € per Primer)
	Reagents	Agarose, Running Buffer, Loading Buffer, Molecular Weight Standard and Ethidium bromide or expensive DNA-Stainers (Ethidium bromide (Waste): Costs for Disposal) ➔ app. 0,90 €/small Gel (10 Slots)	➔ app. 2,50 € per Strip
	Personnel Costs	Educated Personnel necessary High Investment in Time	No Educated Personnel necessary Low Investment in Time
	Total Costs	**low (if Sample Throughput is high)**	**low (if Sample Throughput is low)**
Use	Experience / Education	necessary	not necessary
	Sensitivity	high	very high (app. 100 - 1000 x higher)
	Selectivity	good	very good (Distinguishes between PCR-Products of the same size!)
	Application	Many fold	restricted
	Distribution (Market)	high	low