*alpha*Cube Kits – Overview, Cycling Protocols and Volumes

MIKROGEN DIAGNOSTIK

							Cycling Protocols					
alphaCube Kits	Green	Yellow	Orange	Red	Art. No.	Rxn	A	B	C	D	E	F/Mikrogen
*alpha*Cube Babesia	Babesia	Int. Contr. (IC)	–	–	830525 / 830526	96 / 32	X	X				
*alpha*Cube Bordetella	Bordetella pertussis	Int. Contr. (IC)	Bordetella parapertussis	–	830559 / 830560	96 / 32			X			
*alpha*Cube Borrelia	Borrelia	Int. Contr. (IC)	–	–	830527 / 830528	96 / 32	X	X				
*alpha*Cube Borrelia/Rickettsia	Borrelia burgdorferi sensu lato	Int. Contr. (IC)	–	Rickettsia sp.	830576 / 830577	96 / 32	X	X				
*alpha*Cube Ehrlichia	Ehrlichia (Anaplasma)	Int. Contr. (IC)	–	–	830533 / 830534	96 / 32	X	X				
*alpha*Cube Entero 2.0[1]	Enteroviruses (Enterovirus, Coxsackievirus, Echovirus, Poliovirus)	Int. Contr. (IC)	–	–	830509 / 830510	96 / 32				X		
*alpha*Cube gastroplexVirus	Norovirus	Int. Contr. (IC)	Rotavirus	Adenovirus	830501 / 830502	96 / 32			X			
*alpha*Cube gastroplexVirus 2.0[2]	Norovirus GI, Sapovirus	Int. Contr. (IC)	Rotavirus, Astrovirus	Norovirus GII, Adenovirus	830503 / 830504	96 / 32			X			
alphaCube GBS	GBS	Int. Contr. (IC)	–	–	830547 /830548	96 / 32			X			
alphaCube HSV/VZV	HSV-1	Int. Contr. (IC)	HSV-2	VZV	830572 / 830573	96 / 32			X			
alphaCube Legionella	L. pneumophila	Int. Contr. (IC)	–	–	830539 / 830540	96 / 32					X	
alphaCube MRSA 3.0	MRSA SCCmec	Int. Contr. (IC)	–	mecA/mecC Mutat./Delet.	830557 / 830558	96 / 32			X			
alphaCube MTB	MTB	Int. Contr. (IC)	–	–	830561 / 830562	96 / 32			X			
alphaCube MTB-NTM-MAC	MTB	Int. Contr. (IC)	MAC	NTM	830566 / 830567	96 / 32			X			
*alpha*Cube Noro[1]	Norovirus (GI and GII)	Int. Contr. (IC)	–	–	830513	96			X			
*alpha*Cube PanLegionella	Legionella spp.	Int. Contr. (IC)	–	–	830535 / 830536	96 / 32					X	
*alpha*Cube PVL-MRSA	SCCmec/orfX	Int. Contr. (IC)	PVL	mecA/mec	830570 / 830571	96 / 32			X			
*alpha*Cube Q-Fever	Coxiella burnetii	Int. Contr. (IC)	–	–	830555 / 830556	96 / 32	X	X				
*alpha*Cube respiraRNA 2.0	Influenza A	Int. Contr. (IC)	RSV	Influenza B	830507 / 830508	96 / 32			X			
*alpha*Cube Rickettsia	Rickettsia	Int. Contr. (IC)	–	–	830574 / 830575	96 / 32	X	X				
*alpha*Cube TBE[1]	Tick Borne Enceph. Virus	Int. Contr. (IC)	–	–	830519 / 830520	96 / 32		X				
*alpha*Cube TBEV/WNV	Tick Borne Enceph. Virus	Int. Contr. (IC)	West Nile Virus	–	830568 / 830569	96 / 32		X				
*alpha*Cube Tropical Fever	Chikungunyavirus/GF-V.	Int. Contr. (IC)	Denguevirus 1-4	Zikavirus	830563 / 830564	96 / 32						X

[1]LC-Version for LightCycler 1.5 and 2.0 available, channel for IC is 705

[2]Parameter depends on use of Reaction Mix 1 or/and 2

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A	Description	Time	Temp.	Cycles
	Initial Denaturation	10 min	95 °C	1
	Amplification			
	Denaturation	10 sec	95 °C	45
	Annealing	20 sec	60 °C	
	Extension	10 sec	72 °C	

B	Description	Time	Temp.	Cycles
	Reverse Transcription	20 min	45 °C	1
	Initial Denaturation	10 min	95 °C	1
	Amplification			
	Denaturation	10 sec	95 °C	45
	Annealing	20 sec	60 °C	
	Extension	10 sec	72 °C	

C	Description	Time	Temp.	Cycles
	Reverse Transcription	10 min	45 °C	1
	Initial Denaturation	5 min	95 °C	1
	Amplification			
	Denaturation	10 sec	95 °C	45
	Annealing and Extension	40 sec	60 °C	

D	Description	Time	Temp.	Cycles
	Reverse Transcription	20 min	45 °C	1
	Initial Denaturation	2 min	95 °C	1
	Amplification			
	Denaturation	5 sec	95 °C	45
	Annealing	20 sec	60 °C	
	Extension	10 sec	72 °C	

E	Description	Time	Temp.	Cycles
	Initial Denaturation	10 min	95 °C	1
	Amplification			
	Denaturation	15 sec	95 °C	45
	Annealing	30 sec	60 °C	
	Extension	30 sec	72 °C	

F/Mikrogen	Description	Time	Temp.	Cycles
	Reverse Transcription	8 min	50 °C	1
	Initial Denaturation	3 min	95 °C	1
	Amplification			
	Denaturation	10 sec	95 °C	45
	Annealing and Extension	45 sec	60 °C	

Volumes MM (IC extracted)	**Volume per Reaction**	**Volume Master Mix**
	15.8 µl Reaction Mix	15.8 µl x (N+1)
	0.2 µl Enzyme	0.2 µl x (N+1)
	4 µl Sample Eluate	
	20 µl Total	**16 µl Total x (N+1)**

Volumes MM with IC (IC not extracted)	**Volume per Reaction**	**Volume Master Mix**
	15.8 µl Reaction Mix	15.8 µl x (N+1)
	0.2 µl Enzyme	0.2 µl x (N+1)
	X µl Control RNA/RNA*	0.X µl x (N+1)*
	4 µl Sample Eluate	
	20.X µl Total*	**16.X µl Total x (N+1)***

***amount of control DNA or RNA differs between kits and is written in the respective IFU**