TRUPCR® Neuro Panel Kit

NEED

Neuroinfectious diseases are a major cause of morbidity and mortality worldwide and have a sizable effect on local health care systems and economies. The outcome of viral infections varies according to the pathogen, the availability of specific antiviral therapy, and the management of potential complications, especially in pediatric patients. Enterovirus and human herpesvirus (HHV) infections were found to be associated with amyotrophic lateral sclerosis (ALS) and herpes simplex virus type 1 with Alzheimer's. Similarly, Epstein-Barr virus, varicella-zoster virus, cytomegalovirus, HHV-6, and HHV-7 with multiple sclerosis.

Early diagnosis of Neuro pathogens is required for those patients who require hospitalization for fluid administration and pain relief, while others can be safely treated at home. Exceptions include varicella and herpes simplex virus, which, if severe, are treated with antiviral agents.

Image Source: https://www.researchgate.net/figure/The-typical-drawing-of-a-nervous-impulse-as-a-small-object-is-incorrect-Nerve-pulses-are_fig1_265469262

SOLUTION BY TRUPCR®

TRUPCR® Neuro Panel Kit is an in vitro nucleic acid amplification assay for qualitative detection and differentiation of 11 different virus nucleic acid on Real-Time PCR. An endogenous internal control is incorporated into the system to verify the quality of samples, quality of extracted nucleic acid, amplification procedure and possible presence of inhibitors, which may cause false negative results and this design, makes this kit highly reliable.

This assay is based on oligonucleotide hydrolysis principle which allows higher specificity and sensitivity. This is a single step detection assay where different targets are detected with the help of three different dyes (FAM/Green, HEX/VIC/Yellow & Texas Red/ROX/Orange).

TARGET PATHOGENS

STD Primer Probe Mix 1

FAM	HEX	TEX RED
Human adenovirus	Enterovirus	Human Parechovirus

STD Primer Probe Mix 2

FAM	HEX	TEX RED
Herpes simplex virus1	Herpes simplex virus2	Endogenous IC

STD Primer Probe Mix 3

FAM	HEX	TEX RED
Human Parvovirus B19	Epstein-Barr virus	Varicella Zoster virus

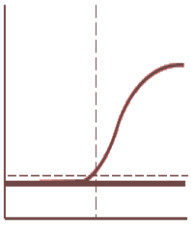
STD Primer Probe Mix 4

FAM	HEX	TEX RED
Human Cytomegalovirus	Human Herpesvirus 6	Human Herpesvirus 7

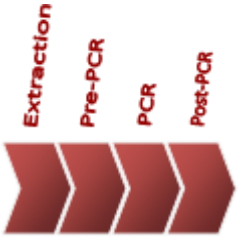
CE IVD

TRUPCR®

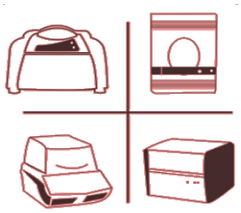
KEY FEATURES



Endogenous Internal Control incorporated within the kit to ensure reliable results



Complete workflow solution available from Extraction of sample to Post-PCR analysis



Platform agnostic as compatible with various platforms

Rapid and reliable results within 100-120 minutes after PCR Start

TECHNICAL SPECIFICATIONS

- Sample Type – Extracted total nucleic acid from Cerebrospinal fluid (CSF) samples of human origin
- Clinical Validation – Validated on more than 500 clinical samples
- Target Regions – Conserved regions of the genome of each pathogen
- Reaction Volume – 25 µl in each tube
- LOD Data: Human adenovirus = 1.0 copies/µl, Enterovirus = 1.0 copies/µl, Human Parechovirus = 1.0 copies/µl, Herpes simplex virus 1 = 0.5 copies/µl, Herpes simplex virus 2 = 0.5 copies/µl, Human Parvovirus B19 = 100 IU/ml, Epstein-Barr virus = 1.0 copies/µl, Varicella Zoster virus = 1.0 copies/µl, Human Cytomegalovirus = 125 IU/ml, Human Herpes virus 6 = 1.0 copies/µl, Human Herpes virus 7 = 1.0 copies/µl
- Compatible Instruments – Applied Biosystems™ 7500 series, Applied Biosystems™ StepOne series, Applied Biosystems™ QuantStudio® series, Rotor-Gene Q, Bio-Rad CFX96

CLINICAL DATA

		Reference Method		
		Positive	Negative	Total
TRUPCR Method	Positive	117	1	118
	Negative	3	127	130
	Total	120	128	248

Parameters	Estimate
Sensitivity	97.56%
Specificity	99.22%
Positive Predictive Value	99.17%
Negative Predictive Value	97.71%

ORDERING INFORMATION

Cat. No.	Description	Size
3B240	TRUPCR® Neuro Panel Kit	48 Reactions
3B239	TRUPCR® Neuro Panel Kit	96 Reactions

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