





The AmplideX® PCR/CE FMR1 Kit\*‡ is a tool to amplify and detect the cytosine-guanine-guanine (CGG) repeat region in the 5′-untranslated region of the fragile X mental retardation-1 (FMR1) gene. The assay consists of a polymerase chain reaction (PCR) of genomic DNA purified from whole blood followed by fragment sizing on an Applied Biosystems Genetic Analyzer and conversion of product size to the number of CGG repeats.

## A PCR-ONLY APPROACH



Reproducible detection of all allele expansions, including low abundance full mutation size mosaics with up to at least 1300 CGG



Definitive resolution of female homozygous and heterozygous samples and indication of interrupting AGG sequences



Reduced need for Southern blot analysis by as much as 10- to 50fold and up to 875 fold more sensitive than Southern blot



Referenced in more than 3 dozen peer-reviewed publications and used globally in more than 175 laboratories



AmplideX® mPCR FMR1 Kit\* is a research tool that employs an innovative PCR-only approach for the detection of methylation status in the FMR1 gene. The reagents can be used for determining the extent of methylation of each allele thus giving a lab professional complete freedom from running tedious and time-consuming Southern blots.

## **ASSAY WORKFLOW AND FEATURES**



Determines methylation status and quantifies methylation of each allele



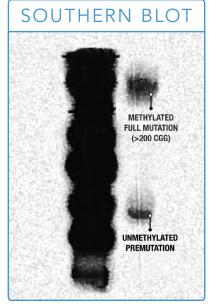
Simplified PCR-only workflow completely eliminates the need for Southern blot while providing higher resolution data

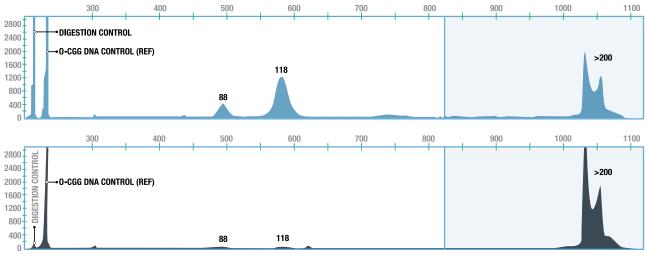


Detects lower abundance methylation and size mosaic alleles



Improves turnaround time by fivefold: 10 hours from DNA to data (as compared to 1 week for Southern blot)





METHYLATION PCR		CALCULATED METHYLATION			
DIGESTION CONTROL (% DIGESTED)		ALLELE 1	ALLELE 2	ALLELE 3	
		88 CGG	118 CGG	>200 CGG >200 CGG	
MF24	99%	1%	0%	100%   100%	
	Fully Digested	Unmethylated	Unmethylated	Fully Methylated	

Figure 1 : AmplideX® mPCR FMR1 Kit\* provides intra-assay and allele-specific methylation quantification consistent with Southern blot analysis

Product Name	Number of Reactions	Catalog Number
AmplideX® PCR/CE FMR1 Reagents*	100	49402
AmplideX® PCR/CE FMR1 Kit‡	100	76008
AmplideX <sup>®</sup> mPCR FMR1 Kit*	24	49442
AmplideX <sup>®</sup> PCR/CE FMR1 Reporter*	N/A	49576
AmplideX <sup>®</sup> PCR/CE FMR1 Control*	24 μΙ	49513
AmplideX <sup>®</sup> mPCR FMR1 Control <sup>*</sup>	24 μΙ	49514

<sup>\*</sup>For research use only. Not for use in diagnostic procedures.  $\pm$ CE-IVD. For US export only.



