

AmplideX[®]

mPCR *FMR1* Kit



A streamlined PCR approach for the detection and quantification of methylation status in the *FMR1* gene

Sensitive, allele-specific methylation quantification is rapidly delivered in this easy-to-use assay. The innovative design improves turnaround time by fivefold compared to Southern blot (<8 hours vs. 1 week). This assay was designed to complement the AmplideX PCR/CE *FMR1* Reagents*.

REDUCED COMPLEXITY

- Eliminates the need for Southern blot
- Easily quantify allele-specific methylation with digestion, PCR, and CE
- Includes spike-in digestion and amplification controls to ensure high performance with every sample

OPTIMIZED WORKFLOW

- PCR and CE design empowers simple implementation
- Results in under a day
- Flexible use on widely installed CE equipment

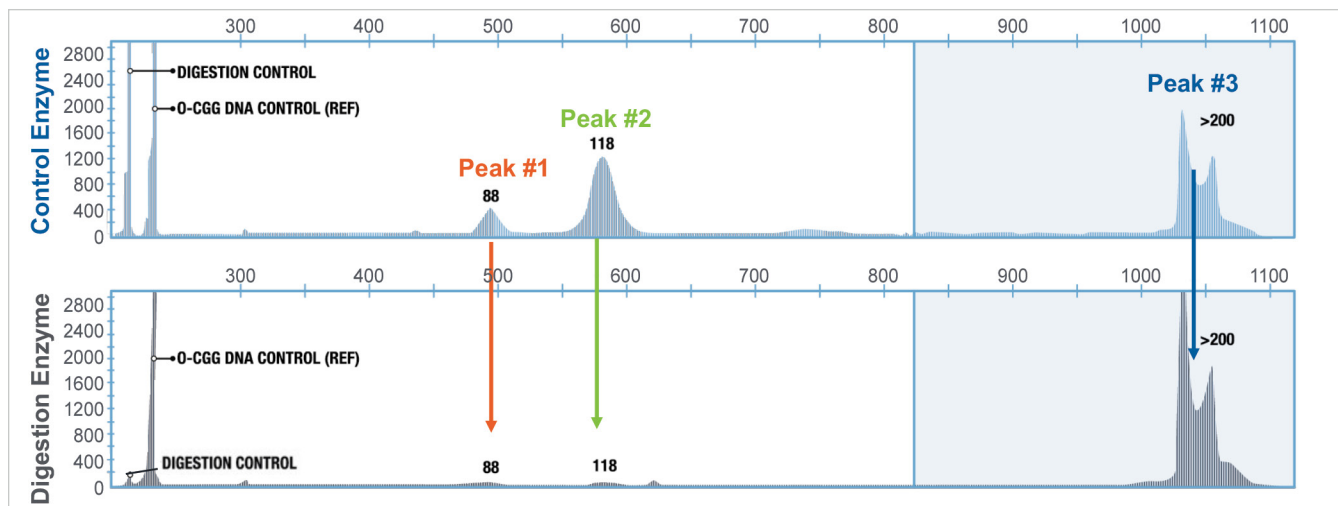
QUALITY RESULTS

- Provides allele-specific methylation quantification consistent with Southern blot analysis
- Detects lower abundance methylation and size mosaics
- High quality controls available from a single vendor ensure sensitive, reliable testing

AmplideX mPCR *FMR1* * Workflow – <1 day from DNA to data



SIMPLER ALLELE-SPECIFIC METHYLATION QUANTIFICATION



Digestion control confirms complete digestion of unmethylated alleles

	Calculated Methylation		
	Peak #1	Peak #2	Peak #3
CGG repeats	88	118	>200, >200
% Methylated	1%	0%	100%, 100%

- Control and methylation-sensitive digestions allow comparison of peak heights to determine percent methylation
- Methylation protects from digestion, ensuring simple detection of unmethylated peaks

KIT RESULTS CORRELATE WELL WITH OBSERVED PHENOTYPE

Phenotype[†]

- Male in his 50s with normal cognitive function and severe anxiety. Self-referred because brother and sister have FXS. Daughter has a premutation.

Outcomes: Methylation mosaicism

- Lack of severe intellectual disability (here, normal intelligence) was consistent with methylation mosaicism, which included an unmethylated full mutation as the primary allele.

	Methylation Results		
	Peak #1	Peak #2	Peak #3
CGG repeats	53	153	>200
% Methylated	3%	96%	4%

ORDERING INFORMATION

Part Number	Product Description	Number of Reactions
49442	AmplideX mPCR <i>FMR1</i> Kit*	24 reactions
49513	AmplideX PCR/CE <i>FMR1</i> Control*	24 ul
49514	AmplideX mPCR <i>FMR1</i> Control*	24 ul

For more information, please contact asuragen.com

*For Research Use Only. Not for use in diagnostic procedures.

[†]Case courtesy of Rush University Medical Center