# MOLECULAR DIAGNOSTICS TESTING SOLUTIONS

EXCELLENT PERFORMANCE OF RT-PCR TESTS FOR ACCURATE DIAGNOSIS & TRUE SCREENING

## MOLGEN CE-IVD GENETICS AZF-MICRODELETIONS KIT

### MALE FERTILITY AND Y CHROMOSOME MICRODELETIONS

AZF, microdeletions of azoospermia factors, occur in the Y-chromosome regions Yq, responsible for spermatogenesis causing abnormalities in spermatogenesis and, therefore, male infertility.

At molecular level, deletions extend over 0.8 - 7.7 Mb, including several genes, but the size of AZF loci is too small to be detected by cytogenetics methods, that is why "microdeletions" term is used.

According to "EAA/EMQN best practice guidance for molecular diagnosis of Y-chromosomal microdeletions", microdeletions were detected in conventional Azoospermia factors loci at the q arm of the Y chromosome, AZFa, AZFb, AZFc by real-time PCR.

The absence of any group of markers in the patient specimen DNA confirms the deletion of the corresponding AZF locus.

To detect AZFa, AZFb and AZFc deletions following specific marker sequences were selected: sY-84 and sY- 86 (AZFa locus); sY-127 and sY-134 (AZFb locus); sY- 254 and sY-255 (AZFc locus).

The detection of the sex-determination SRY gene at the Yp arm (that is responsible for the initiation of male sex determination in humans and is absent in females) is performed in order to confirm the presence of Y- chromosome DNA in the specimen and male gender confirmation.

To confirm the presence of sufficient amount of human DNA in the specimen, the amplification of HMBS gene fragment located in autosome is performed simultaneously with Y-chromosome markers.

#### AZF-MICRODELETIONS KIT FOR BASIC DELETION SCREENING

- The identification and analysis of Y chromosome deletions is an important research tool for studying male infertility.
- Deletions in three regions, AZFa, AZFb, AZFc and are associated with male infertility.
- MOLgen Genetics AZF-Microdeletions Kit amplifies nonpolymorphic short DNA segments of the Y-chromosome by using Real-Time PCR.

#### FEATURES & ADVANTAGES

- All-in-one dried formats, easy to use with minimized steps.
- High potential for specific detection of all markers needed for basic deletion screening as recommended by European Academy of Andrology (EAA) and the European Molecular Genetics Quality Network (EMQN).
- Controls: sex-determining region Y protein (SRY gene) and HMBS gene for sample quality assurance.
- Stable storage of reagents/kits up to a year at 2-8°C, no freezing is required.
- Transportation of kits at temperatures up to +25°C. for up to 10-days.

#### SPECIMEN

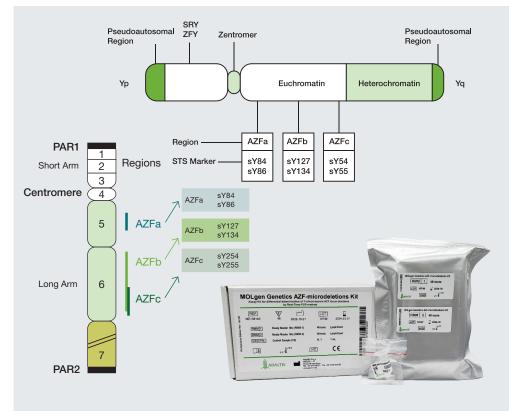
Whole blood
 Buccal epithelium

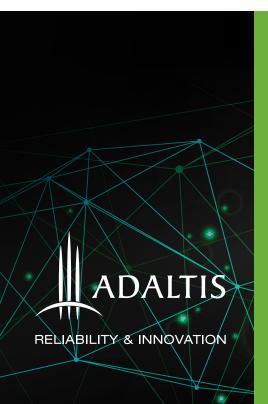
#### AUTOMATED WORKFLOW

- Automated Extraction EXTRAlab
- Automated Extraction eLab
- RT-PCR AMPLilab

#### COMPATABILITY

Compatible thermal cyclers: AMPLIIab (Adaltis) CFX96™ (Bio-Rad, USA), DTprime (DT-96)





REF: ME138140

48 RXNS

GENETIC	S		
Code	Kit Name	Format	Number of Tests
ME138020	<ul> <li>MOLgen Genetics Haemostatic Disease (F2/F5)</li> </ul>	STR	48
ME138030	<ul> <li>MOLgen Genetics Haemostatic Diseases (MTR/ MTRR/ MTHFR)</li> </ul>	STR	48
ME138310	<ul> <li>MOLgen Genetics Haemostatic Disease (B-Fibrinogen/FXIII)</li> </ul>	STR	48
ME138320	<ul> <li>MOLgen Genetics Haemostatic Disease (ITGA2/FVII)</li> </ul>	STR	48
ME138330	<ul> <li>MOLgen Genetics Haemostatic Diseases (PAI-1/ITGB3)</li> </ul>	STR	48
ME138060	<ul> <li>MOLgen Genetics ACE Del287/AGT T704C</li> </ul>	STR	48
ME138070	<ul> <li>MOLgen Genetics BRCA (BRCA1 185delAG / 3875del4) Kit</li> </ul>	STR	48
ME138080	<ul> <li>MOLgen Genetics BRCA (BRCA1 3819del5 / T300G) Kit</li> </ul>	STR	48
ME138090	<ul> <li>MOLgen Genetics BRCA (BRCA1 2080delA(insA) / BRCA2 6174delT) Kit</li> </ul>	STR	48
ME138120	<ul> <li>MOLgen Genetics BRCA (BRCA1 4153delA / 5382insC) Kit</li> </ul>	STR	48
ME138220	<ul> <li>MOLgen Genetics Hemochromatosis (HFE 187 C/G) Kit</li> </ul>	STR	48
ME138230	<ul> <li>MOLgen Genetics Hemochromatosis (HFE 193 A/T) Kit</li> </ul>	STR	48
ME138240	<ul> <li>MOLgen Genetics Hemochromatosis (HFE 845 G/A) Kit Reagent kit is intended for differential determination of single-nucleotide polymorphisms of the coagulation system and folate cycle by real-time PCR with detection of melting curves.</li> </ul>		
ME138360	<ul> <li>MOLgen Genetics HLA-B*27 NEW Reagent kit is intended for detection of HLA-b*27 allele by real-time PCR.</li> </ul>	UNI	48
ME138040	<ul> <li>MOLgen Genetics MCM6</li> </ul>	UNI	48
	Reagent kit is designed for determination of single-nucleotide polymorphism of MCM6 gene - 13910C/T by real-time PCR with detection of melting curves.		
ME138110	<ul> <li>MOLgen Genetics Interleukin 28B</li> </ul>	UNI	48
	Reagent kit is designed for determination of single-nucleotide polymorphism of interleukin 28B gene by real-time PCR with detection of melting curves.		
ME138140	<ul> <li>MOLgen Genetics AZF - Microdeletions Kit</li> </ul>	STR	48
	Reagent kit is designed for differential determination of Y-chromosome AZF locus deletions by real-time PCR.		
ME138270	<ul> <li>MOLgen Genetics Warfarin (CYP2C9*2/CYP2C9*3) Kit NEW</li> </ul>	STR	48
	Reagent kit is intended for the determination of single nucleotide polymorphisms (SNPs) 430 C/T in CYP2C9 gene (CYP2C9*2) and 1075 A/C in CYP2C9 gene (CYP2C9*3). The kits contain reagents for real-time PCR only.		
ME138280	<ul> <li>MOLgen Genetics Warfarin (VKORC1/CYP4F2*3) Kit NEW</li> </ul>	STR	48
	Reagent kit is intended for the determination of single nucleotide polymorphisms (SNPs) 1173 C/T in VKORC1 gene and 1297 C/T in CYP4F2 gene (CYP4F2*3).		
ME138290	<ul> <li>MOLgen Genetics Warfarin (GGCX) Kit NEW</li> <li>Reagent kit is intended for the determination of single nucleotide polymorphism rs11676382 C/G in GGCX gene.</li> </ul>	STR	48
ME138300	<ul> <li>MOLgen Genetics Warfarin (CYP2C9*5/CYP2C9*6) Kit NEW</li> <li>Reagent kit is intended for the determination of single nucleotide polymorphisms (SNPs) 1080</li> <li>C/G in CYP2C9 gene (CYP2C9*5) and 818 delA in CYP2C9 gene (CYP2C9*6).</li> </ul>	STR	48

The kits contain reagents for real-time PCR only.

Y-chr 11.3 Male specific region of the Y-chromosome (MSY) SRY(Control) 11.2 X/Y B(SD) amXY(SD) ₹ ZFY(Control) M259(STS) USP9Y SY625(STS) AZFa DDX3Y SY86(STS) UTY SY84(STS) 11.221 SY90(Control) CDY2A HSFY1 HSFY2 SY127(STS) RPS4Y2 AZFb SY130(STS) RBMY1B SY131(STS) ă RBMY1A1 DYS448(STR & STS) RBMY1D RBMY1E PRY BPY2 DAZ1 A SY152(STS) C SY153(STS) DAZ2 CDY1B and SY254(STS) SY255(STS) SY157(STS) DAZ3 DAZ4 BPY2C CDY1A ADALTIS

MOLECULAR DIAGNOSTICS



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