

Technical Information

Investigator[®] Human Identification PCR Kits

The QIAGEN portfolio of multiplex PCR human identification kits offers the most comprehensive and versatile coverage of current international STR standards. These include the European Standard Set (ESS), Combined DNA Index (CODIS), other non-standard loci and unique gonosomal loci. The kits are well suited for use in molecular forensics, paternity and kinship analyses, as well as cell line identification. The following tables summarize the kit markers by standard and dye color.

Table 1. Markers of the Investigator Human Identification PCR Kits by international standard

		Investigator 24plex QS Kit*	Investigator 24plex GO! Kit*	Investigator ESSplex SE QS Kit	Investigator 26plex QS Kit	Investigator 10Dplex Plus Kit	Investigator 10Dplex GO! Kit	Investigator Triplex DSF Kit	Investigator Triplex AF5 QS Kit	Investigator HDplex Kit	Investigator Argus X-12 QS Kit	Investigator Argus Y-12 QS Kit	Investigator DIP-plex Kit
Amelogenin		AM	AM	AM	AM			AM	AM	AM		AM	
Quality Sensor		QS1, QS2	QS1, QS2	QS1, QS2				QS		QS	QS		
International Standards	20 CODIS core loci (Hares, 2015)	12 ESS core loci	D1S1656	D1S1656	D1S1656								
			D2S441	D2S441	D2S441								
			D10S1248	D10S1248	D10S1248								
			D12S391	D12S391	D12S391				D12S391				
			D22S1045	D22S1045	D22S1045								
			D3S1358	D3S1358	D3S1358	D3S1358	D3S1358						
			D8S1179	D8S1179	D8S1179	D8S1179	D8S1179						
			D18S51	D18S51	D18S51	D18S51	D18S51		D18S51				
			D21S11	D21S11	D21S11	D21S11	D21S11			D21S11			
			TH01	TH01	TH01	TH01	TH01						
			vWA	vWA	vWA	vWA	vWA						
			FGA	FGA	FGA	FGA	FGA	FGA	FGA				
			D2S1338	D2S1338	D2S1338	D2S1338	D2S1338						
			D19S433	D19S433	D19S433	D19S433	D19S433						
			D16S539	D16S539	D16S539	D16S539	D16S539						
			D5S818			D5S818	D5S818						
			D7S820			D7S820	D7S820						
			D13S317			D13S317	D13S317						
			CSF1PO			CSF1PO	CSF1PO						
			TPOX			TPOX	TPOX						
Additional loci		SE33	SE33	DY391			SE33	SE33	SE33		DYS19		30 DIPS
		DY391		D6S1043					D2S1360	DXS7132	DYS385		
				Penta D					D3S1744	DXS7423	DYS385		
				Penta E					D4S2366	DXS8378	DYS389-I		
									D5S2500	DXS10074	DYS389-II		
									D6S474	DXS10079	DYS390		
									D7S1517	DXS10101	DYS391		
									D8S1132	DXS10103	DYS392		
									D10S2325	DXS10134	DYS393		
									D21S2055	DXS10135	DYS437		
										DXS10146	DYS438		
										DXS10148	DYS439		
										HPRTB			

* NDIS approved, for reference see www.fbi.gov.

Table 2. Autosomal STR markers of the Investigator Human Identification PCR Kits by dye color

Locus	Chromosomal mapping	Label dye							
		Investigator 24plex QS Kit	Investigator 24plex GOI Kit	Investigator 26plex QS Kit	Investigator ES5plex SE QS Kit	Investigator IDplex Plus Kit	Investigator IDplex GOI Kit	Investigator HDplex Kit	Investigator Triplex DSF Kit
Amelogenin	Xp22.1-22.3, Yp11.2	6-FAM™	6-FAM	6-FAM	6-FAM	6-FAM			6-FAM
QS1		BTP	BTP	6-FAM					6-FAM
D1S1656	1q42	BTG	BTG	BTG					
D2S441	2p14	BTR2	BTR2	BTR					
D2S1338	2q35	BTY	BTY	BTY	BTG				
D3S1358	3p25.3	6-FAM	6-FAM	6-FAM	6-FAM			6-FAM	
D2S1360	2p24-p22						6-FAM		
D3S1744	3p24						6-FAM		
D4S2366	4p16-15.2						6-FAM		
D5S2500	5q11.2						BTG		
D5S818	5q23.2	BTP	BTP		BTG				
D6S474	6q21-22						6-FAM		
D6S1043	6q16.1		6-FAM						
D7S820	7q21.11	BTP	BTP		BTG				
D7S1517	7q31.33						6-FAM		
D8S1132	8q23.1						BTG		
D8S1179	8q23.1-23.2	BTY	BTY	BTY	BTR				
D10S1248	10q26.3	BTY	BTY	BTY					
D10S2325	10p12						BTY		
D12S391	12p13.2	BTG	BTG	BTY			6-FAM		
D13S317	13q31.1	BTP	BTP		BTY				
D16S539	16q24.1	BTP	BTP	BTG	BTY				
D18S51	18q21.3	BTR2	BTR2	BTR	BTR	BTG			
D19S433	19q12	BTY	BTY	BTG	BTG				
D21S11	21q21.1	6-FAM	6-FAM	6-FAM	6-FAM				
D21S2055	21q22						BTG		
D22S1045	22q12.3	BTY	BTY	BTY					
FGA (FIBRA)	4q28.2	BTR2	BTR2	BTR	BTR		HEX	6-FAM	
SE33 (ACTBP2)	6q14.2	BTG		BTG			BTY	6-FAM	6-FAM
TH01 (TC11)	11p15.5	6-FAM	6-FAM	6-FAM	6-FAM				
vWA	12p13.31	6-FAM	BTR2	6-FAM	6-FAM				
TPOX	2p25.3	BTG	BTG		BTG				
CSF1PO	5q33.1	BTP	BTP		BTY				
DYS391	Yq11.21	BTG	BTG						
Penta D	21q22.3		6-FAM						
Penta E	15q26.2		BTG						
QS2		BTP	BTP	6-FAM					

Table 3. X-chromosomal STR markers of the Investigator Argus X-12 QS Kit by dye color

Investigator Argus
X-12 QS Kit

Locus	Chromosomal mapping	Label dye
Amelogenin	Xp22.1-22.3, Yp11.2	6-FAM
QS1	—	6-FAM
DXS7132	Xq11.2	BTG
DXS7423	Xq28	BTY
DXS8378	Xp22.31	6-FAM
DXS10074	Xq12	BTG
DXS10079	Xq12	BTY
DXS10101	Xq26.2	6-FAM
DXS10103	Xq26.2	6-FAM
DXS10134	Xq28	6-FAM
DXS10135	Xp22.31	BTG
DXS10146	Xq28	BTY
DXS10148	Xp22.31	BTR
HPRTB	Xq26.2	BTR
D21S11	21q21.1	BTR

Table 4. Y-chromosomal STR markers of the Investigator Argus Y-12 QS Kit by dye color

Investigator
Argus Y-12 QS Kit

Locus	Chromosomal mapping	Label dye
QS	—	6-FAM
DYS19	Yp11.2	BTG
DYS385	Yq11.222	6-FAM
DYS389-I	Yq11.21	BTG
DYS389-II	Yq11.21	BTG
DYS390	Yq11.221	6-FAM
DYS391	Yq11.21	BTG
DYS392	Yq11.222	BTY
DYS393	Yp11.31	BTY
DYS437	Yq11.21	6-FAM
DYS438	Yq11.21	BTY
DYS439	Yq11.21	6-FAM

References

1. Hares, D. R. (2015) Selection and implementation of expanded CODIS core loci in the United States. *Forensic Sci. Int. Genet.* **17**, 33–34.

Ordering Information

Product	Contents	Cat. no.
Investigator 24plex QS Kit (100)	Primer Mix, Fast Reaction Mix 2.0, Control DNA, Allelic Ladder 24plex, DNA Size Standard 24plex (BTO) and Nuclease-Free Water	382415
Investigator 24plex GO! Kit (200)	Primer Mix, Fast Reaction Mix 2.0, Control DNA, Allelic Ladder 24plex, DNA Size Standard 24plex (BTO)	382426
Investigator 26plex QS (100)	Primer Mix, Fast Reaction Mix 3.0 including <i>Taq</i> DNA Polymerase, Control DNA, Allelic Ladder 26plex and Nuclease-Free Water	382615
Investigator ESSplex SE QS Kit†	Primer Mix, Fast Reaction Mix 2.0, Control DNA, Allelic Ladder ESSplex SE QS, DNA Size Standard 550 (BTO)	381575
Investigator IDplex Plus Kit (100)*†	Primer Mix, Fast Reaction Mix, Control DNA, Allelic Ladder IDplex Plus, DNA Size Standard 550 (BTO) and Nuclease-Free Water	381625
Investigator IDplex GO! Kit (200)*†	Primer Mix, Fast Reaction Mix, Control DNA, Allelic Ladder IDplex GO! DNA Size Standard 550 (BTO)	381636
Investigator Triplex DSF Kit (400)*	Primer Mix, Reaction Mix, DNA Polymerase, Control DNA, Allelic Ladder Triplex DSF, DNA Size Standard and Nuclease-Free Water	380327
Investigator Triplex AFS QS Kit (400)*	Primer Mix, Reaction Mix, DNA Polymerase, Control DNA, Allelic Ladder Triplex AFS, DNA Size Standard and Nuclease-Free Water	380317
Investigator HDplex Kit (100)*	Primer Mix, Reaction Mix, DNA Polymerase, Control DNA, Allelic Ladder HDplex, DNA Size Standard and Nuclease-Free Water	381215
Investigator Argus X-12 QS Kit†	Primer Mix, Fast Reaction Mix 2.0, Control DNA, Allelic Ladder Argus X-12 QS, DNA Size Standard 550 (BTO) and Nuclease-Free Water	383223
Investigator Argus Y-12 QS Kit (100)*	Primer Mix, Reaction Mix, DNA Polymerase, Control DNA, Allelic Ladder Argus Y-12 QS, DNA Size Standard and Nuclease-Free Water	383615
Investigator DIPlex Kit (100)	Primer Mix, Reaction Mix, DNA Polymerase, Control DNA, Allelic Ladder DIPlex, DNA Size Standard and Nuclease-Free Water	384015

* Not available in all countries; please inquire.

† Larger kit sizes available; please inquire.

Investigator STR Kits meet ISO 18385 requirements.

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