

A group of children are riding bicycles on a dirt path through a lush green forest. The child in the foreground is wearing a green jacket and a red helmet, smiling. Other children in various colored jackets and helmets are visible in the background, also riding their bikes.

OncoPrint Childhood Cancer Research Assay

Cancer in children and young adults is different

The Ion Torrent™ OncoPrint™ Childhood Cancer Research Assay is a unique NGS-based tool, designed for comprehensive genomic profiling of cancers affecting children and young adults. Since the driving genetic aberrations of these malignancies are different than those affecting adults, a specific and comprehensive panel is needed to advance research. Our panel is targeted to drive the future of precision medicine in pediatric oncology.

Unique content for comprehensive coverage

- Compiled by leading researchers and pediatric oncologists
- 203 unique genes, including thousands of fusion drivers and comprehensive mutation coverage

Optimized workflow for fast results

- End-to-end solution including informatics
- From sample to report in 2–3 days, depending on sample type
- Different sample types including blood, bone marrow, and formalin-fixed, paraffin-embedded (FFPE) tissue

International Childhood Oncology Network (ICON)

- Free membership available for every user
- Access the new variant database platform for result comparison and collaborative projects

“The OncoPrint Childhood Cancer Research Assay is the first panel designed for multiple forms of childhood cancer. Of particular importance, it assays both RNA and DNA, which allows one to detect both gene fusions and DNA mutations, both of which are important research.”

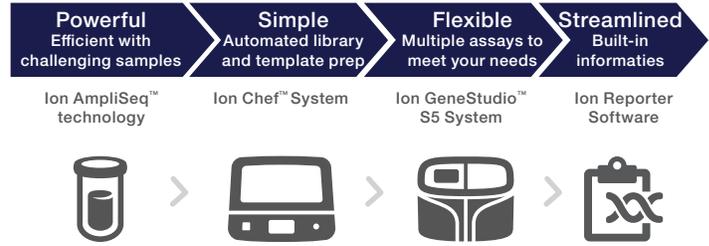
I am also very excited by the establishment of the International Childhood Cancer Network (ICON) which will allow us to collect data and share our experience in order to drive clinical research in childhood cancer.”

Timothy Triche, MD, PhD
Founding Director of the Children’s Hospital
Los Angeles Center for Personalized Medicine

ICON is helping increase our knowledge of childhood cancer

As a user of the OncoPrint Childhood Cancer Research Assay, you will be invited to become a member of ICON, established by Thermo Fisher Scientific. The aim of this organization is to connect research all over the world to facilitate collaboration and sharing, including protocols and best-practice samples to enable rapid validation and ongoing quality assessment. Members will also have access to the variant platform, enabled by the Ion Torrent™ OncoPrint™ Informatics page in the Ion Reporter™ Software.

OncoPrint Childhood Cancer Research Assay workflow



The end-to-end workflow is optimized for childhood cancer research, enabling researchers to analyze a variety of sample types including blood and bone marrow, fresh/frozen tissue, and FFPE tissue, and go from sample to result in 2–3 days. Up to 8 samples can be multiplexed on a single chip, allowing for flexibility in batch size.

Table 1. The content has been developed with leading scientists and pediatric oncologists. It comprises a large translocation/fusion panel for 97 genes with more than 1,700 fusion isoform variants, which more commonly occur in childhood sarcomas and leukemias. It also includes DNA panel for 82 targets with comprehensive coverage of all relevant mutations, 44 targets with full exon coverage (specifically tumor suppressor genes), and 24 CNV targets.

Comprehensive mutation coverage (82)					CNV (24)		Full exon coverage (44)			Fusion and expression (88)					Gene expression (9)
ABL1	CSF1R	FLT3	KRAS	PIK3R1	ALK	FGFR1	APC	GATA1	RB1	ABL1	FGFR2	MECOM	NTRK2	ROS1	BCL2
ABL2	CSF3R	GATA2	MAP2K1	PPM1D	BRAF	FGFR2	ARID1A	GATA3	RUNX1	ABL2	FGFR2	MEF2B	NTRK3	RUNX1	BCL6
ALK	CTNNB1	GNAQ	MAP2K2	PTPN11	CCND1	FGFR3	ARID1B	GNA13	SMARCA4	ALK	FGFR3	MET	NUP214	SS18	FGFR1
ACVR1	DAXX	H3F3A	MET	RAF1	CDK4	FGFR4	ATRX	ID3	SMARCB1	BCL11B	FLT3	MKL1	NUP98	SSBP2	FGFR4
AKT1	DNMT3A	HDAC9	MPL	RET	CDK4	GLI1	CDKN2A	IKZF1	SOCS2	BCOR	FOSB	MLL10	NUTM1	STAG2	IGF1R
ASXL1	EGFR	HIST1H3B	MSH6	RHOA	CDK4	GLI2	CDKN2B	KDM6A	SUFU	BCR	FUS	MN1	NUTM2B	STAT6	MET
ASXL2	EP300	HRAS	MTOR	SETBP1	CDK4	IGF1R	CEBPA	KMT2D	SUZ12	BRAF	GLI1	MYB	PAX3	TAL1	MYCN
BRAF	ERBB2	IDH1	NCOR2	SETD2	CDK4	KIT	CHD7	MYOD1	TCF3	CAMTA1	GLIS2	MYBL1	PAX5	TCF3	MYC
CALR	ERBB3	IDH2	NOTCH1	SH2B3	CDK4	KRAS	CRLF1	NF1	TET2	CCND1	HMGA2	MYH11	PAX7	TFE3	TOP2A
CBL	ERBB4	IL7R	NPM1	SH2D1A	CDK6	MDM2	DDX3X	NF2	TP53	CIC	JAK2	MYH9	PDGFB	TP63	
CCND3	ESR1	JAK1	NRAS	SMO	EGFR	MDM4	DICER1	PHF6	TSC1	CREBBP	KAT6A	NCOA2	PDGFRA	TSLP	
CCR5	EZH2	JAK2	NT5C2	STAT3	EGFR	MET	EBF1	PRPS1	TSC2	CRLF2	KMT2A	NCOR1	PDGFRB	TSPAN4	
CDK4	FASLG	JAK3	PAX5	STAT5B	ERBB2	MYC	EED	PTCH1	WHSC1	CSF1R	KMT2B	NOTCH1	PLAG1	UBTF	
CIC	FBXW7	KDM4C	PDGFRA	TERT	ERBB3	MYCN	FAS	PTEN	WT1	DUSP22	KMT2C	NOTCH2	RAF1	USP6	
CREBBP	FGFR2	KDR	PDGFRB	TPMT	ERBB3	PDGFRA			XIAP	EGFR	KMT2D	NOTCH4	RANBP17	WHSC1	
CRLF2	FGFR3	KIT	PIK3CA	USP7		PIK3CA				ETV6	LMO2	NPM1	RECK	YAP1	
			ZMYM3							EWSR1	MAML2	NR4A3	RELA	ZMYND11	
										FGFR1	MAN2B1	NTRK1	RET	ZNF384	

Ordering information

Product	Description	Cat. No.
OncoPrint Childhood Cancer Research Assay	Chef Ready Library	A36486
	Manual Library	A36485

000 «Диаэм»

Москва
ул. Магаданская, д. 7, к. 3 ■ тел./факс: (495) 745-0508 ■ sales@dia-m.ru

www.dia-m.ru

С.-Петербург
+7 (812) 372-6040
spb@dia-m.ru

Новосибирск
+7(383) 328-0048
nsk@dia-m.ru

Воронеж
+7 (473) 232-4412
vrn@dia-m.ru

Йошкар-Ола
+7 (927) 880-3676
nba@dia-m.ru

Красноярск
+7(923) 303-0152
krsk@dia-m.ru

Казань
+7(843) 210-2080
kazan@dia-m.ru

Ростов-на-Дону
+7 (863) 303-5500
rnd@dia-m.ru

Екатеринбург
+7 (912) 658-7606
ekb@dia-m.ru

Кемерово
+7 (923) 158-6753
kemeroovo@dia-m.ru

Армения
+7 (094) 01-0173
armenia@dia-m.ru

