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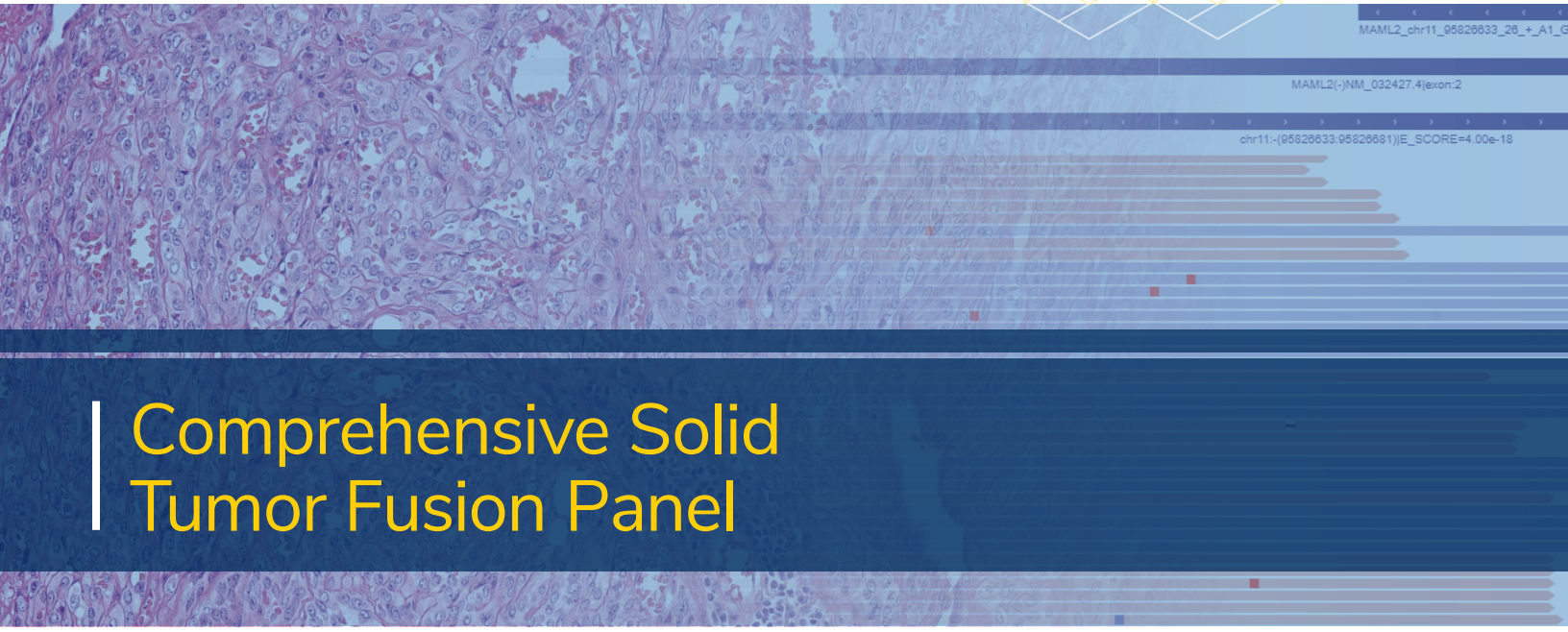

Comprehensive Solid Tumor Fusion Panel

ESSENTIAL DIAGNOSTIC INFORMATION

At MLabs, our Comprehensive Solid Tumor Fusion Panel provides oncologists and pathologists (either as part of an Anatomic Pathology Consultation or a stand-alone order) with comprehensive detection of diagnostic gene fusions without prior knowledge of a suspected gene fusion. This panel is custom-designed to detect all clinically-relevant gene fusions in solid tumors with detection of any fusion partner for 142 targeted genes known to be rearranged in solid tumors. The detection of gene fusions for diagnostic and therapeutic purposes is standard of care, according to World Health Organization (WHO) Classifications for CNS tumors, bone and soft tissue tumors, dermatological tumors, head and neck tumors, gynecological mesenchymal tumors and more.

PCR AND NGS

Our panel employs anchored multiplex polymerase chain reaction (PCR), followed by next-generation sequencing (NGS). Pathologists often order the fusion panel for diagnostic purposes, and oncologists frequently order the solid tumor panel and NGS panel for therapy.

TARGETED THERAPIES

Comprehensive coverage, including novel fusion partners, for targetable gene fusions including *ALK*, *ROS1*, *RET*, *NTRK1*, *NTRK2*, *NTRK3*, *FGFR1*, *FGFR2*, *FGFR3*, *NRG1*, etc.

CUSTOM CONTENT

The custom content of this panel reflects all current, clinically-relevant gene fusions in solid tumors and is also designed to be modifiable over time in order maintain its comprehensiveness as the literature evolves.

ACCURATE RESULTS WITH INFORMATIVE REPORTING

Highly qualified pathologists, board-certified in Molecular Genetic Pathology and Anatomic Pathology, interpret sequencing data in the context of clinical and histopathologic findings. Reports include a description of gene fusions with functional effect and implications for diagnosis and therapy, including useful citations., histopathology and other laboratory data.

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COMPREHENSIVE SOLID TUMOR FUSION PANEL – 142 TARGETED GENES

ACVR2A	EGFR	GRB7	MSMB	PDGFB	ROS1
AKT1	EPC1	GRM1	MUSK	PDGFD	RSPO2
AKT2	ERBB2 (HER2)	HMGA2	MYB	PDGFRA	RSPO3
AKT3	ERBB4	IGF1R	MYBL1	PDGFRB	SRF
ALK	ERG	INSR	MYC	PHF1	SS18
AR	ESR1	JAK2	NCOA1	PHF21A	SS18L1
ARAF	ESRRA	JAK3	NCOA2	PHKB	STAT6
ARHGAP26	ETV1	JAZF1	NCOA3	PIK3CA	TAF15
ARHGAP6	ETV4	KAT6B	NFATC2	PKN1	TCF12
AXL	ETV5	KIT	NFE2L2	PLAG1	TEK
BCOR	ETV6	MAML2	NFIB	PPARG	TERT
BRAF	EWSR1	MAP2K1	NOTCH1	PRDM10	TFE3
BRD3	FGF1	MAP3K3	NOTCH2	PRKACA	TFEB
BRD4	FGFR1	MAP3K8	NPM3	PRKACB	TFG
CAMTA1	FGFR2	MAST1	NR4A3	PRKCA	THADA
CCNB3	FGFR3	MAST2	NRG1	PRKCB	TMPRSS2
CCND1	FGR	MBTD1	NTRK1	PRKCD	USP6
CDX1	FOS	MDM2	NTRK2	PRKD1	VEGFD (FIGF)
CIC	FOSB	MEAF6	NTRK3	PRKD2	VGLL2
CRTC1	FOXO1	MERTK	NUMBL	PRKD3	WWTR1
CSF1	FOXO4	MET	NUTM1	RAD51B	YAP1
CSF1R	FOXR2	MITF	OGA (MGEA5)	RAF1	YWHAE
DNAJB1	FUS	MN1	PAX3	RELA	
EGF	GLI1	MRTFB (MKL2)	PAX8	RET	

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