Lymphoma Sample Jamie Watson

Date of Birth 1935-08-03

Sex

Female

Physician

Dr. Beth Wang

Institution

Thomas-Kirk

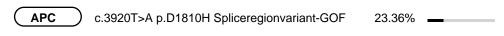
Tumor specimen: source Lymphoma CollectedDate 2023-09-05 ReceivedDate 2023-09-05 TumorPercentage 62%

Normal specimen: source Blood CollectedDate 2023-09-07 ReceivedDate 2023-09-07

GENOMIC VARIANTS

Somatic - Potentially Actionable variant allele fraction **XPC** c.3113A>G p.S346P Spliceregionvariant-LOF 25.15% **IKZF1** c.3113A>G p.N159Y Spliceregionvariant-GOF 4.33% DICER1 c.5438A>G p.E1813K Missensevariant(exon2)-GOF 19.02%

Somatic - Biologically Relevant



Germline - Pathogenic

No Germline - Pathogenic variants were found in the limited set of genes on which we report.

Pertinent Negatives



IMMUNOTHERAPY MARKERS

Tumor Mutational Burden	Microsatellite Ins	tability Status		
49 m/Mb 82%	Stable	Equivocal	High	\supset

FDA-APPROVED THERAPIES, Current Diagnosis

KRAS G12C	Sotorasib	NCCN, Consensus, Non-Small Cell Lung Cancer
Inhibitors		MSK OncoKB, Level 1
		KRASp.G12C G12C-GOF

FDA-APPROVED THERAPIES, Other Indications

KRAS G12C	Sotorasib	NCCN, Consensus, Non-Small Cell Lung Cancer
Inhibitors		MSK OncoKB, Level 1
		KRASp.G12C G12C-GOF

ADDITIONAL INDICATORS

Ulliavoiable Flouliosi	rable Progno	sis
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NCCN, Consensus, Non-Small Cell Lung Cancer KRASp.G12C Gain-of-function

CLINICAL TRIALS

A Study of VS-6766 v. VS-6766 + Defactinib in Recurrent G12V, Other KRAS and BRAF Non-Small Cell Lung Cancer

Phase 2 City, state - x mi KRAS mutation

A Phase 1/2 Study of MRTX849 in Patients With Cancer Having a KRAS G12C Mutation KRYSTAL-1

Phase 1/2 City, state - x mi KRAS mutation STK11 mutation

First-in-human Study of DRP-104 (Sirpiglenastat) as Single Agent and in Combination With Atezolizumab in Patients With Advanced Solid Tumors. (NCT04471415)

Phase 1/2 City, state - x mi NFE2L2 mutation STK11 mutation

VARIANTS OF UNKNOWN SIGNIFICANCE

Somatic	Mutation effect	Variant allele fraction
HSD3B1	c.1100= p.T367N Spliceregionvariant-LOF NM_001011645	7.39%
U2AF1	c.3113A>G p.R156X Nonsense-LOF NM_001011645	16.15%
ERBB2	c.2326_2327insTCT p.G776C Nonsense-LOF NM_001011645	4.72%
JAK3	c.3113A>G p.L857P Spliceregionvariant-LOF NM_001011645	1.43%
RNF43	c.380G>C p.A169T Frameshift-GOF NM_001011645	5.57% -
NCSTN	c.3113A>G p.A572G Frameshift-GOF NM_001011645	3.88%
Germline	Mutation effect	Condition
NT5C2	c.1100G>A p.R367Q Frameshift-GOF NM_001011645	wait
FGFR3	c.1948A>G p.Y373C Frameshift-LOF NM_001011645	need

LOW COVERAGE REGIONS

HSD3B1

HRAS

ARID2

SOMATIC VARIANT DETAILS - POTENTIALLY ACTIONABLE

XPC

c.3113A>G p.S346P Spliceregionvariant-LOF

VAF: 25.15%

RBM10 encodes a protein that contains a RNA-binding motif and interacts with RNA homopolymers, and is thought to function in regulating alternative splicing. Loss of function mutations and copy number loss of RBM10 are associated with cancer progression.

IKZF1

c.3113A>G p.N159Y Spliceregionvariant-GOF

VAF: 4.33% -

ARID2 encodes a protein that is a subunit of the SWI/SNF chromatin remodeling complex SWI/SNF-B or PBAF. This complex functions in ligand-dependent transcriptional activation. Loss of function mutations and copy number loss of ARID2 are associated with cancer progression.

DICER1

c.5438A>G p.E1813K Missensevariant(exon2)-GOF

VAF: 19.02%

STK11 (LKB1) encodes an enzyme in the serine/threonine kinase family that is responsible for maintaining energy metabolism and cellular polarization through the activation of AMP-activated protein kinase and other members of the AMPK family. The enzyme also acts as a tumor suppressor by regulating cell growth. Loss of function mutations, copy number loss, epigenetic variation, and underexpression of STK11 are associated with cancer progression.

SOMATIC VARIANT DETAILS - BIOLOGICALLY RELEVANT

APC

c.3920T>A p.D1810H Spliceregionvariant-GOF

VAF: 23.36%

KRAS is a GDP/GTP binding protein that acts as an intracellular signal transducer. KRAS is involved in several pathways involved in cellular proliferation and survival, including the PI3K-AKT-mTOR pathway and the Ras-Raf-MEK-ERK pathway. Activating mutations, copy number gains, and overexpression of KRAS are associated with cancer progression.

CLINICAL HISTORY

Diagnosed on

2023-09-01