

## Fluorescent In Situ Hybridization (FISH) REPORT: CDKN2A/B

<b>Patient Name</b>	G.M Malith Mahendra	<b>Requesting Clinician</b>	Dr. Mahilal Wijekoon
<b>Gender</b>	Male	<b>Hospital Information</b>	Aegle Omics Private Limited
<b>Date of Birth/Age</b>	39 Years	<b>Sample Received</b>	Two FFPE blocks labelled as GJ-5572-C & GJ-5572-D. Assay done on block GJ5572-D.
<b>Sample ID</b>	9497262	<b>Samples Collected(Date &amp; Time)</b>	NA.
<b>Order ID(s)</b>	1496704	<b>Samples Received(Date &amp; Time)</b>	27-10-2025 3:05 pm
<b>Clinical Indication</b>	Diffuse astrocytoma	<b>Report Date</b>	03-11-2025 19:18:00

### RESULT SUMMARY

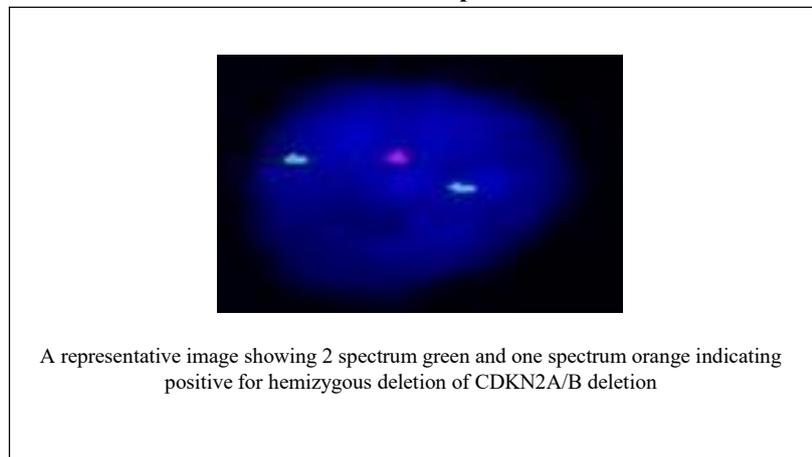
Probe name	Result	ISCN 2024
CDKN2A / CEP 9	Positive	nuc ish(CDKN2Ax1,CEP9x2)[21/100]/ nuc ish(CDKN2A,CEP9)x2[79/100]

### Interpretation:

**FISH test is positive for CDKN2A/B hemizygous deletion.**

**Kindly correlate with other genetic, clinical & histopathological findings.**

### Detailed Report



Spectrum Green (G)	CEP 9 (9p11-q11)	Spectrum Orange (O)	CDKN2A (9p21)
--------------------	------------------	---------------------	---------------

Loci analyzed	Cut off percentage	Observed Percentage	Result
CDKN2A/B/CEP9	≥15%	21%	<b>Positive</b>

## Fluorescent In Situ Hybridization (FISH) REPORT: CDKN2A/B

<b>Patient Name</b>	G.M Malith Mahendra	<b>Requesting Clinician</b>	Dr. Mahilal Wijekoon
<b>Gender</b>	Male	<b>Hospital Information</b>	Aegle Omics Private Limited
<b>Date of Birth/Age</b>	39 Years	<b>Sample Received</b>	Two FFPE blocks labelled as GJ-5572-C & GJ-5572-D. Assay done on block GJ5572-D.
<b>Sample ID</b>	9497262	<b>Samples Collected(Date &amp; Time)</b>	NA.
<b>Order ID(s)</b>	1496704	<b>Samples Received(Date &amp; Time)</b>	27-10-2025 3:05 pm
<b>Clinical Indication</b>	Diffuse astrocytoma	<b>Report Date</b>	03-11-2025 19:18:00

**Testing methodology:** FISH is a molecular cytogenetic technique used to detect the presence or absence and location of specific gene sequences. FISH involves co-denaturation and hybridization of fluorescent labelled specific DNA probes to target DNA sequence in the interphase cells. Paraffin- embedded tissue specimen should be deparaffinized and pre-treated to enhance tissue permeability. The excess unbound probe is removed during post hybridization washes. The sample is stained with DAPI (4',6-Diamidino-2-phenylindole) a counter-stain to demarcate the nuclei. Each fluorescent labelled probe that hybridizes to region of interest in interphase cells are visualized as signal using suitable optical filters under Epi fluorescent microscope. 100 non overlapping cells are counted for each probe. Interpretation of results is done based on the signal patterns observed and the results of the test are reported.

Cut off for homozygous deletion- If more than 30% of interphase nuclei shows absence of orange signals, indicates positive for homozygous deletion.

Test was performed using Vysis CDKN2A / CEP 9 probe. In a normal cell hybridized with the CDKN2A (Spectrum Orange)/CEP9 (Spectrum Green) probe, two orange and two green signals will be observed indicative of two intact copies of chromosome 9. In an abnormal cell, with a homozygous deletion is associated with a strong adverse prognosis factor in diffuse malignant IDH-mutant gliomas. CDKN2A loss is highly prognostic in IDH/TP53 mutated astrocytomas. Testing for CDKN2A loss could be a potentially useful "grading" biomarker for this adult glioma subtype. After correlating for the IDH mutational status, sex, and age, CDKN2A deletions were strongly associated with poorer overall survival in astrocytomas but not in oligodendrogliomas.

### References:

1. Vysis CDKN2A/CEP9 probe set kit insert.
2. Daniel F. Marker and Thomas M. Pearce; Marker and Pearce acta; "Homozygous deletion of CDKN2A by fluorescence in situ hybridization is prognostic in grade 4, but not grade 2 or 3, IDH-mutant astrocytomas" neuropathol commun (2020) 8:169
3. Sung-Hye Park et al; Molecular Testing of Brain Tumor; Journal of Pathology and Translational Medicine 2017; 51: 205-223
4. Gerald F Reis, MD, PhD et al; "CDKN2A Loss Is Associated with Shortened Overall Survival in Lower Grade (World Health Organization II-III) Astrocytomas"; J Neuropathol Exp Neurol. 2015 May ; 74(5): 442-452.
5. WHO classification of central nervous system tumors 2021.

### Disclaimers:

1. This test was developed and its performance characteristics determined by Medgenome.
2. The finding of this test must be correlated with clinical diagnosis.
3. Genetic changes other than those assayed cannot be ruled out on the basis of this testing.

**Enclosed: -.**

**Fluorescent In Situ Hybridization (FISH) REPORT: CDKN2A/B**

<b>Patient Name</b>	G.M Malith Mahendra	<b>Requesting Clinician</b>	Dr. Mahilal Wijekoon
<b>Gender</b>	Male	<b>Hospital Information</b>	Aegle Omics Private Limited
<b>Date of Birth/Age</b>	39 Years	<b>Sample Received</b>	Two FFPE blocks labelled as GJ-5572-C & GJ-5572-D. Assay done on block GJ5572-D.
<b>Sample ID</b>	9497262	<b>Samples Collected(Date &amp; Time)</b>	NA.
<b>Order ID(s)</b>	1496704	<b>Samples Received(Date &amp; Time)</b>	27-10-2025 3:05 pm
<b>Clinical Indication</b>	Diffuse astrocytoma	<b>Report Date</b>	03-11-2025 19:18:00

Prepared by:

Vishram S

  
E. Venkataswamy, PhD  
Lab Director  
Dr. Syed Muqlisur Rehman., MD (Path)  
Molecular Pathologist  
KMC Reg No. - 71468

End of report