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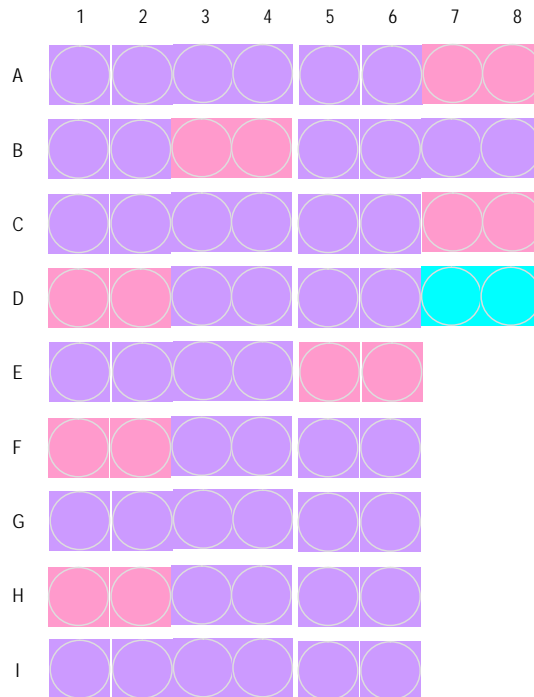
**Specifications:**

- No. of cases: 30
- Tissue type: Brain cancer tissues: grade III~IV
- No. of spots: 2 spots from each cancer case (60 spots)  
2 non-neoplastic spots (2 spots)
- Total spots: 62
- Corresponding normal tissues with cancers: Yes
- Diameter: 1.0 mm




**Documents:**

- Product specification: layout, summary of tissue spots
- H&E stained images
- Detailed pathological information

**Layout:**



**WHO and St.Anne/Mato grading system**

WHO grade	WHO designation	St.Anne/Mayo designation
	: III Anaplastic astrocytoma	Astrocytoma grade 3
	: IV Glioblastoma multiforme	Astrocytoma grade 4
	: non malignant	

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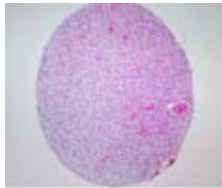
**Summary of tissue spots**

	Coordinate	Sex	Age	WHO grade	Keyword	
1	A	1,2	f	68	IV	Glioblastoma
2		3,4	f	67	IV	Glioblastoma
3		5,6	m	54	IV	Glioblastoma
4		7,8	f	41	III	Anaplastic astrocytoma
5	B	1,2	f	76	III	Anaplastic astrocytoma
6		3,4	f	37	III	Anaplastic astrocytoma
7		5,6	m	45	IV	Glioblastoma
8		7,8	f	74	IV	Glioblastoma
9	C	1,2	f	56	IV	Glioblastoma
10		3,4	m	39	IV	Glioblastoma
11		5,6	f	69	IV	Glioblastoma
12		7,8	f	42	III	Anaplastic astrocytoma
13	D	1,2	f	59	III	Anaplastic astrocytoma
14		3,4	f	70	IV	Glioblastoma
15		5,6	m	44	IV	Glioblastoma
16		7	f	69		Non-neoplastic
17		8	m	44		Non-neoplastic
18	E	1,2	f	60	IV	Glioblastoma
19		3,4	f	57	IV	Glioblastoma
20		5,6	f	11	III	Anaplastic astrocytoma
21	F	1,2	m	44	III	Anaplastic astrocytoma
22		3,4	m	44	IV	Glioblastoma
23		5,6	f	69	IV	Glioblastoma
24	G	1,2	f	76	IV	Glioblastoma
25		3,4	f	55	IV	Glioblastoma
26		5,6	m	62	IV	Glioblastoma
27	H	1,2	f	29	III	Anaplastic astrocytoma
28		3,4	m	53	IV	Glioblastoma
29		5,6	m	56	IV	Glioblastoma
30	I	1,2	f	51	IV	Glioblastoma
31		3,4	f	30	IV	Glioblastoma
32		5,6	f	36	IV	Glioblastoma

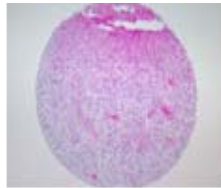
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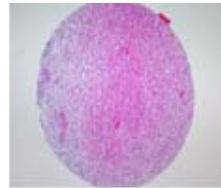
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**Hematoxylin and Eosin staining**



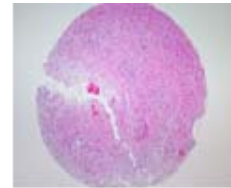
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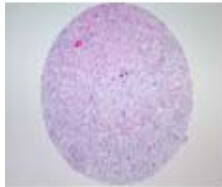
A2



A3



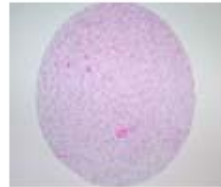
A4



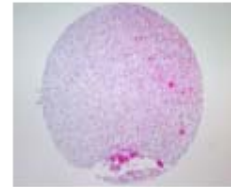
A5



A6



A7



A8



B1



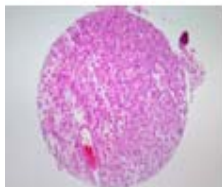
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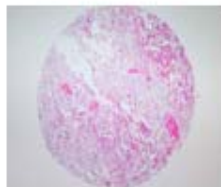
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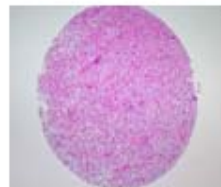
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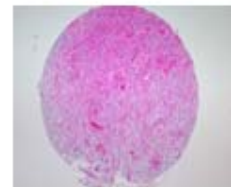
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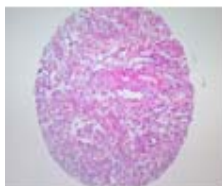
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B7



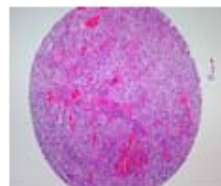
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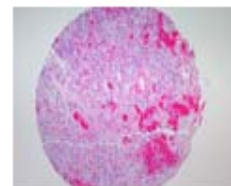
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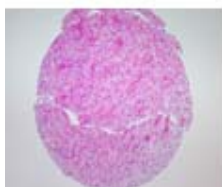
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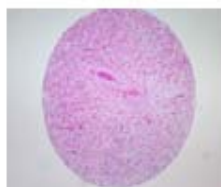
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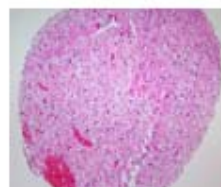
C4



C5



C6



C7

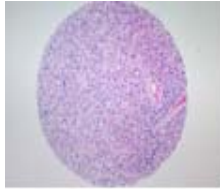


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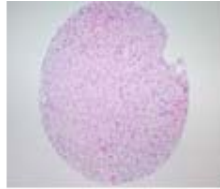
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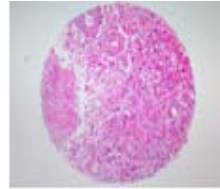
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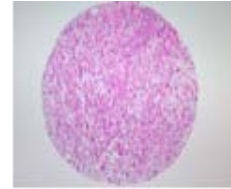
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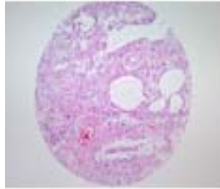
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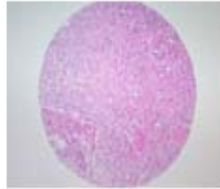
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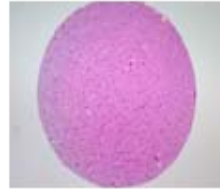
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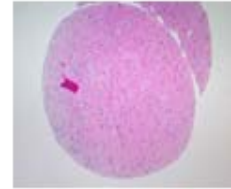
D5



D6



D7



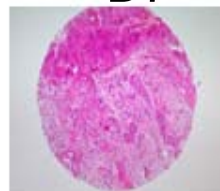
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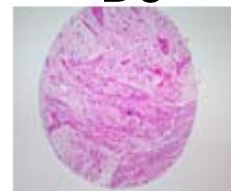
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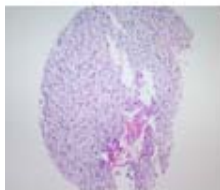
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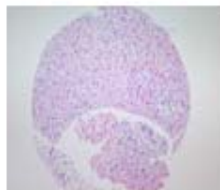
E3



E4



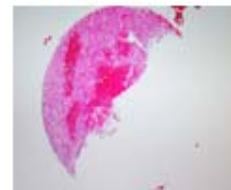
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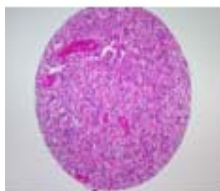
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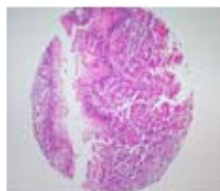
F1



F2



F3



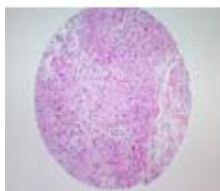
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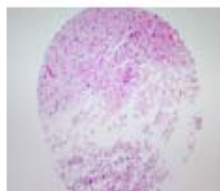
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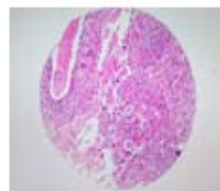
F6



G1



G2



G3

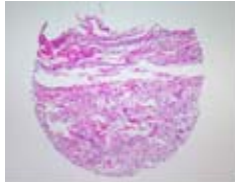


G4

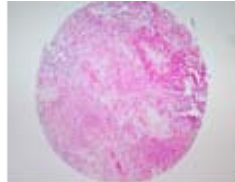
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**QC sheet\_LOT#122120411191**  
**Hematoxylin and Eosin staining**



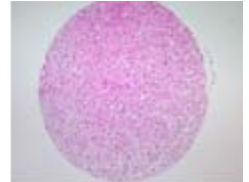
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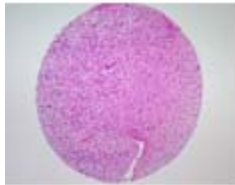
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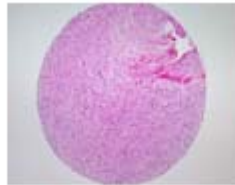
**H1**



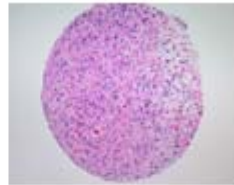
**H2**



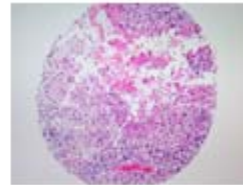
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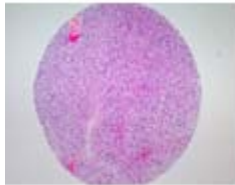
**H4**



**H5**



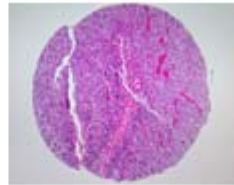
**H6**



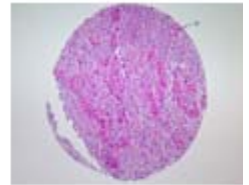
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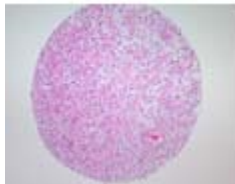
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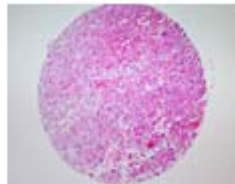
**I3**



**I4**



**I5**



**I6**

**A221 (III): Brain cancer tissues: grade III ~ IV**

No.	Coordinate		Sex	Age	Keyword	Histological Diagnosis
1	A	1,2	f	68	glioblastoma	Brain, left frontal lobe, tumor removal and biopsy: glioblastoma.
2	A	3,4	f	67	glioblastoma	Brain, right occipitoparietal, frozen biopsy: glioblastoma.
3	A	5,6	m	54	glioblastoma	Brain, left frontal area, tumor removal: glioblastoma.
4	A	7,8	f	41	anaplastic astrocytoma	Brain, tumor removal: anaplastic astrocytoma, WHO grade III. Note: Neoplastic cells shows moderately pleomorphic nuclei and mitosis. No necrosis and vascular endothelial proliferation is seen.
5	B	1,2	f	76	glioblastoma	Brain, left occiput, frozen excision: glioblastoma.
6	B	3,4	f	37	anaplastic astrocytoma	Brain, left frontal, removal of tumor: anaplastic gemistocytic astrocytoma, WHO grade III.
7	B	5,6	m	45	glioblastoma multiforme	Brain, right lateral, tumor removal: glioblastoma multiforme.
8	B	7,8	f	74	glioblastoma	Brain, lateral ventricle and corpus callosum, removal: consistent with glioblastoma.
9	C	1,2	f	56	glioblastoma	Brain, parietal, tumor removal: gliosarcoma arising in glioblastoma (Feigin tumor). Note: GFAP(+), Vimentin(+), CK low and high(-), EMA(-).
10	C	3,4	m	39	glioblastoma	Brain, parietal lobe, right, curettage: glioblastoma with meningeal involvement. Dura, excision: Extension of glioblastoma.
11	C	5,6	f	69	glioblastoma	Brain, right frontotemporal, tumor removal: glioblastoma. Note: The results of immunohistochemical study were as follows : GFAP(+), vimentin(+), actin(-).
12	C	7,8	f	42	anaplastic astrocytoma	Brain, tumor removal: anaplastic astrocytoma(bordering glioblastoma multiforme).
13	D	1,2	f	59	anaplastic astrocytoma	Brain, left temporal: anaplastic astrocytoma.
14	D	3,4	f	70	glioblastoma	Brain, frontotemporal area, removal: glioblastoma (with gemistocytic features).
15	D	5,6	m	44	glioblastoma	Brain, frontal lobe, tumor removal: glioblastoma.
16	D	7	f	69	non-neoplastic	non-neoplastic, from C5,6
17	D	8	m	44	non-neoplastic	non-neoplastic, from F3,4
18	E	1,2	f	60	glioblastoma	Brain, left parietooccipital area, removal: astrocytoma grade IV (glioblastoma).
19	E	3,4	f	57	glioblastoma	Brain mass, left fronto-temporal, removal: recurrent glioblastoma (with gliosarcomatous component).
20	E	5,6	f	11	anaplastic astrocytoma	Brain, biopsy: anaplastic astrocytoma.
21	F	1,2	m	44	anaplastic astrocytoma	Cerebrum, site not specified, subtotal removal of tumor: anaplastic astrocytoma (with primary white matter involvement in a case of glioblastoma).

**A221 (III): Brain cancer tissues: grade III ~ IV**

No.	Coordinate		Sex	Age	Keyword	Histological Diagnosis
22	F	3,4	m	44	glioblastoma	Brain, occipital, frozen biopsy: glioblastoma multiforme. Note: GFAP(+), S-100(+), HMB45(-).
23	F	5,6	f	69	glioblastoma	Brain, left temporal, frozen biopsy: glioblastoma multiforme.
24	G	1,2	f	76	glioblastoma	Lt parieto-occipital mass, craniotomy with tumor removal: glioblastoma multiforme.
25	G	3,4	f	55	glioblastoma multiforme	Cerebral mass, right, frontal lobe, removal: glioblastoma multiforme.
26	G	5,6	m	62	glioblastoma multiforme	Brain, tumor removal: glioblastoma multiforme. Note: GFAP(+), Pan-cytokeratin: weakly positive, HMB45(-). Special stain results: Mucicarmine(-).
27	H	1,2	f	29	astrocytoma	Brain, temporal, removal: diffuse infiltrative fibrillary astrocytoma, WHO grade III (anaplastic astrocytoma).
28	H	3,4	m	53	glioblastoma multiforme	Brain, tumor removal: glioblastoma multiforme.
29	H	5,6	m	56	glioblastoma multiforme	Brain mass, left, removal: glioblastoma multiforme.
30	I	1,2	f	51	glioblastoma	Brain, left frontal, removal of tumor: glioblastoma.
31	I	3,4	f	30	glioblastoma multiforme	Cerebral mass, removal: glioblastoma multiforme.
32	I	5,6	f	36	glioblastoma multiforme	Cerebral mass, right, temporal lobe, removal: glioblastoma multiforme in the background of anaplastic gemistocytic astrocytoma.