Anti-GFAP / DIA-700
Mouse monoclonal anti-Glial Fibrillary Acidic Protein = Astrocyte marker, Clone IF3

Product Information

Catalog No.:	**DIA-700-P05** (500µl) DIA-700-M (100µl sample)
Clone:	IF3
Isotype:	Mouse IgG1
Specificity:	Human GFAP
Immunogen:	Fusion protein
Physical State:	Lyophilized powder
Species Reactivity:	Human
Positive Control:	Astrocytes & ependymal cells, Schwann cells
Negative Control:	Skin, connective, muscle, gastroint. tissues, liver, pancreas, kidney, ureter or bladder tissues
Visualization	Cytoplasmic
Reconstitution:	DIA-700 restore to 500µl DIA-700-M restore to 100µl Reconstitute with sterile distilled water by gentle shaking for 10 minutes
Presentation:	Purified antibody in PBS with 2% BSA, 0.05% NaN3,
Applications:	Immunohistochemistry (IHC) (standard formalin-fixed paraffin sections)
Dilution:	1:160-1:320 IHC (General recommendation, validation of antibody performance/protocol is the responsibility of the end user. Postive/negative controls should be run simultaneously with patient specimen. Interpretation must be made by a qualified pathologist within the context of patient's clinical history/other diagnostic tests.)

Reactivity

GFAP (Glial Fibrillary Acidic Protein) has proved to be the most specific marker for cells of astrocytic origin that distinguishes differentiated astrocytes from other glial cells during the development of the central nervous system. Monoclonal antibodies to GFAP are useful in differentiating primary gliomas from metastatic lesions in the brain and for documenting astrocytic differentiation in tumors outside the CNS

As a 50 kDa intracytoplasmic filamentous protein, GFAP is thought to be important in astrocyte motility and shape by providing structural stability. As a consequence of injury to the human CNS caused by trauma, genetic disorders, or chemicals, GFAP is markly upregulated and astrocytes proliferate. On the other hand, with increasing astrocyte malignancy, a progressive loss of GFAP production has been observed. Consequntly, malignant astrocytomas have fewer tumour cells that stain positively and intensely for GFAP than do less malignant astrocytomas and normal brain specimens. Outside the CNS, GFAP has been demonstrated in Schwann cells, enteric glia cells, salivary gland neoplasms, and metastasizing renal carcinomas. Moreover, GFAP has been detected in epiglottic cartilage, pituicytes, immature oligodendrocytes, papillary meningiomas, and myoepithelial cells of the breast.

Instructions for Use

Immunohistochemical staining of standard formalin-fixed paraffin sections

Deparaffinize and rehydrate according to standard procedures. Heat induced epitope retrival (HIER) is required. For immunohistochemical detection different techniques can be used: indirect immunoenzyme labeling with a secondary antibody conjugate, biotin/(strept)avidin-based detection, soluble enzyme immune complex or polymer-based detection. The antibody can be adapted for use on automated staining instruments.

Storage and Stability

The antibody in lyophilised form is stable for at least one year (-20°C). As reconstituted liquid store at 2-8°C short term (several weeks). For long term storage aliquot and freeze at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Safety Notes

The material contains 0.05% sodium azide as preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material. Avoid skin and eye contact, inhalation, and ingestion.

For research use only. Not for diagnostic or therapeutic use.

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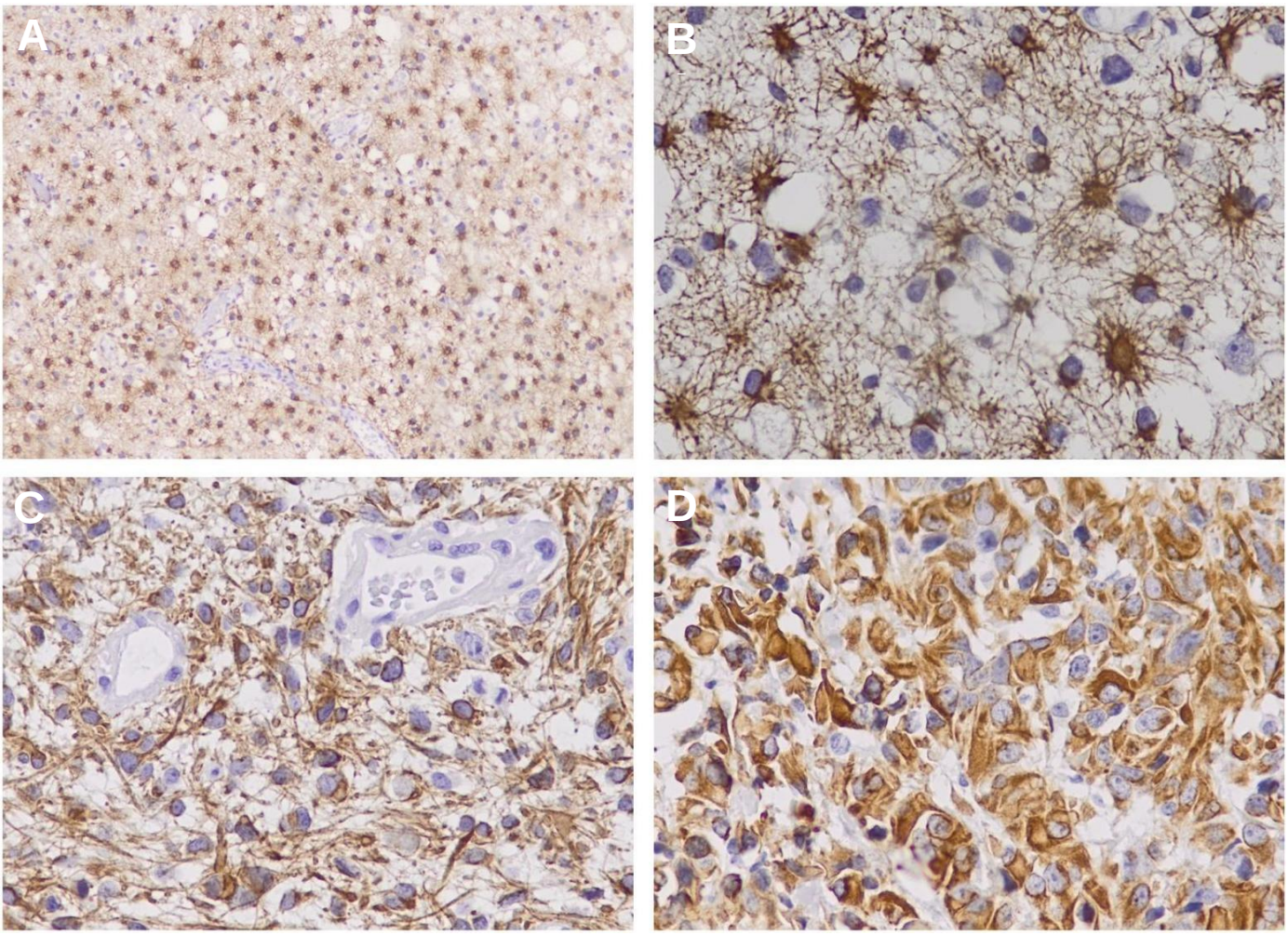
Figure

Immunhistochemical staining pattern of human GFAP in formalin-fixed paraffin-embedded brain tissue
(picture courtesy of Dr. Annette Persson, Department of Clinical Science, Pathology, University Hospital, Lund, Sweden)

A/B Astrocytoma grade II at different magnifications, 10x (A) and 40x (B)
C Glioblastoma
D Oligoastrocytoma grade II



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