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Datasheet for 100-401-D60

Glial Fibrillary Acidic Protein (GFAP) Antibody

Overview

Description:	Anti-Glial Fibrillary Acidic Protein (GFAP) (RABBIT) Antibody - 100-401-D60
Item No.:	100-401-D60
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Rat
Host Species:	Rabbit

Product Details

Background:	Glial Fibrillary Acidic Protein (GFAP) was discovered by Amico Bignami and co-workers as a major fibrous protein of multiple sclerosis plaques. It was subsequently found to be a member of the 10nm or intermediate filament (IF) family, specifically the IF family Class III, which also includes peripherin, desmin and vimentin. GFAP is strongly and specifically expressed in astrocytes and certain other astroglia in the CNS, in satellite cells, peripheral ganglia, and in non-myelinating Schwann cells in peripheral nerves. In many damage and disease states GFAP expression is heavily upregulated in astrocytes. In addition, neural stem cells frequently strongly express GFAP. Point mutations in the protein coding region of the GFAP gene lead to Alexander disease which is characterized by the presence of abnormal astrocytes containing GFAP protein aggregates known as Rosenthal fibers. Therefore, GFAP antibody is ideal for investigators involved in neuropathologic diseases and more generally in Neuroscience.
Synonyms:	gfapl, DKFZp459C0729, MGC139638, FLJ45472, AI836096, cb345.
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	GFAP
Reactivity:	Rat
Immunogen Type:	Recombinant Protein

Immunogen:	Anti-GFAP Antibody was produced in rabbit by repeated immunizations with recombinant and purified bovine glial fibrillary acidic protein.
Purity/Specificity:	Anti-GFAP antibody was prepared from monospecifc neat serum. The antibody is directed against bovine glial fibrillary acidic proteins. Expect reactivity with the following species based on sequence homology: human, mouse, rat. Cross reactivity with GFAP from other species has not been determined.
Relevant Links:	• UniProtKB - Q28115 • GeneID - 281189 • UniProtKB - Q28115.2

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-Glial Fibrillary Acidic Protein (Rabbit) antibody has been tested by western blot, ICC, and IHC and is suitable for use in IF. Anti-Glial Fibrillary Acidic Protein antibodies are specific for the ~50kDa GFAP protein. A lower band at ~45kDa is a proteolytic fragment derived from the GFAP molecule. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:1000
WB:	1:1000

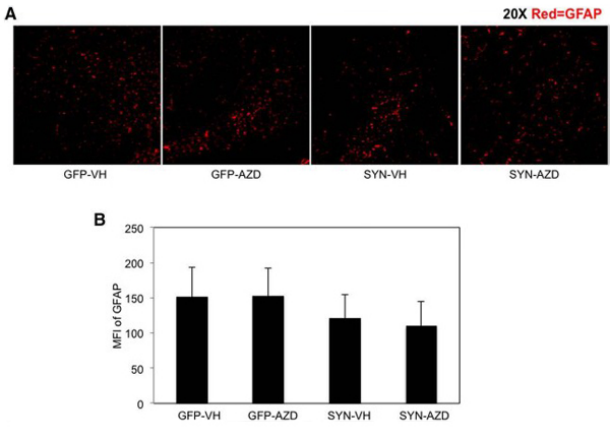
Formulation

Physical State:	Liquid

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

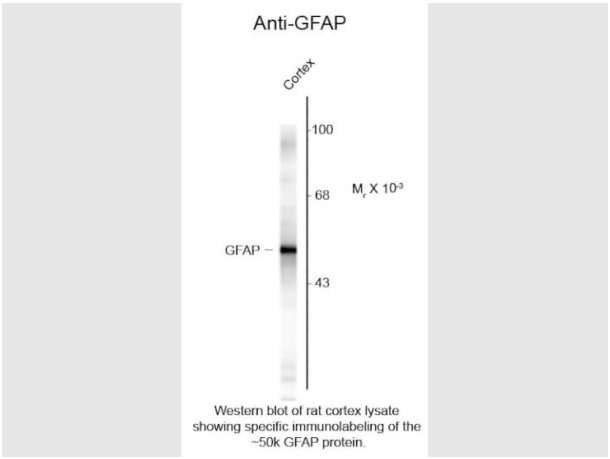
Images



Immunohistochemistry

AZD1480 treatment does not influence GFAP expression in vivo. A, VH or AZD1480 (10 mg/kg/d) was administered by oral gavage for 2 weeks to AAV2-GFP or AAV2-α-SYN transduced rats, 2 weeks post-transduction. GFAP (red)-expressing cells were measured in the SNpc using immunohistochemistry at 4 weeks. B, Quantification of GFAP staining in the SNpc of AAV2-GFP and AAV2-α-SYN rats at 4 weeks (4 sections/sample, n = 3/group). Mean ± SD of MFI. Statistical significance was determined by one-way ANOVA with Bonferroni selected comparison post hoc test in (n = 12).

These results demonstrate the presence of CD4+ T helper cells in the AAV2-α-SYN PD model, and that JAKinib treatment reduces infiltration. GFAP expression was assessed as a measure of astrogliosis. No significant changes were detected, indicating that α-SYN transduction did not influence the activation of astrocytes, nor did inhibition of the JAK/STAT pathway. Fig. 5. PMID: 27147665.



Western Blot

Western Blot of Rabbit Anti-Glial Fibrillary Acidic Protein Antibody. Lane 1: rat cortex lysate . Lane 2: none. Load: 10 µg per lane. Primary antibody: GFAP antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~ 50k, ~ 50k for GFAP protein. Other band(s): none.

References

- Qin H et al. Inhibition of the JAK/STAT Pathway Protects Against α-Synuclein-Induced Neuroinflammation and Dopaminergic Neurodegeneration. *J Neurosci.* (2016)

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