For Research Use Only

CoraLite® Plus 488-conjugated GFAP Monoclonal antibody

Catalog Number:CL488-60190 7 Publications

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Basic Information

Catalog Number:
CL488-60190

Concentration:
1000 ug/ml

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG10452

GenBank Accession Number:
BC013596

GeneID (NCBI):
2670

UNIPROT ID:
P14136

Full Name:
glial fibrillary acidic protein

Calculated MW:
432 aa, 50 kDa

Purification Method:
Protein A purification

CloneNo.:
4B2E10

Recommended Dilutions:
IF-P: 1:50-1:500

Excitation/Emission maxima wavelengths:
493 nm / 522 nm

Applications

Tested Applications:
IF-P

Cited Applications:
IF

Species Specificity:
human, mouse, rat, pig

Cited Species:
mouse, rat

Positive Controls:

IF-P : rat brain tissue, mouse brain tissue

Background Information

GFAP (Glial fibrillary acidic protein) is a type III intermediate filament (IF) protein specific to the central nervous system (CNS). GFAP is one of the main components of the intermediate filament network in astrocytes and has been proposed as playing a role in cell migration, cell motility, maintaining mechanical strength, and in mitosis. GFAP is expressed in central nervous system cells, predominantly in astrocytes. GFAP is commonly used as an astrocyte marker. However, GFAP is also present in peripheral glia and in non-CNS cells, including fibroblasts, chondrocytes, lymphocytes, and liver stellate cells (PMID: 21219963). Astrocytes express 10 different isoforms of GFAP that differ in the rod and tail domains (PMID: 25726916), which means that they differ in molecular size. Isoform expression varies during the development and across different subtypes of astrocytes. Not all isoforms are upregulated in reactive astrocytes. Intermediate filament proteins are regulated by phosphorylation. Six phosphorylation sites have been identified in GFAP protein, at least some of which are reported to control filament assembly (PMID: 21219963). GFAP localizes to intermediate filaments and stains well in astrocyte cellular processes. This antibody is conjugated with CL488, Ex/Em 488 nm/515 nm.

Notable Publications

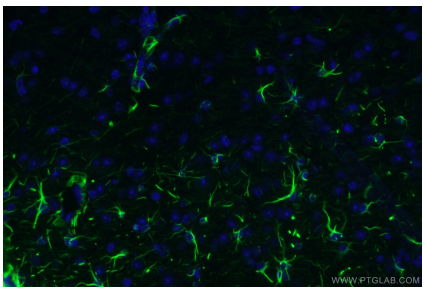
Author	Pubmed ID	Journal	Application
Dawei Sun	34487578	J Neurosci Res	IF
Hongyan Jiang	34289379	Brain Res	IF
Naseer A Kutchy	35462907	Front Pharmacol	IF

Storage

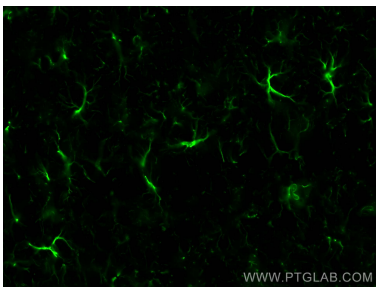
Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

Selected Validation Data

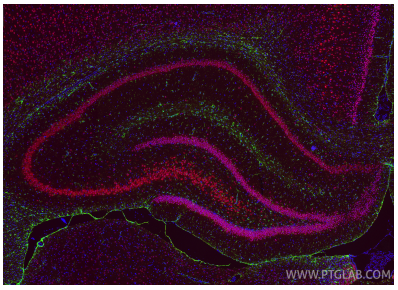


Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse brain tissue using CoraLite® Plus 488 GFAP antibody (CL488-60190, Clone: 4B2E10) at dilution of 1:100. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

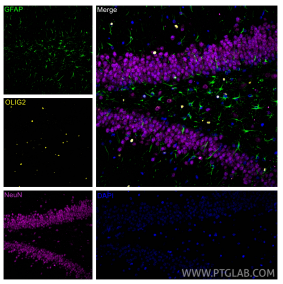


Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using CoraLite® Plus 488 GFAP antibody (CL488-60190, Clone: 4B2E10) at dilution of 1:200.

Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat brain tissue using CoraLite® Plus 488 GFAP antibody (CL488-60190, Clone: 4B2E10) at dilution of 1:200, CoraLite®594 NeuN antibody (CL594-26975, red). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat brain tissue using CoraLite® Plus 488 GFAP antibody (CL488-60190, Clone: 4B2E10) at dilution of 1:200, CoraLite®594 NeuN antibody (CL594-26975, red). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat brain tissue using CoraLite® Plus 488 GFAP antibody (CL488-60190, Clone: 4B2E10) at dilution of 1:200, OLIG2 antibody (13999-1-AP, yellow), NeuN antibody (66836-1-Ig, Clone: 3A4C1, Magenta). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).