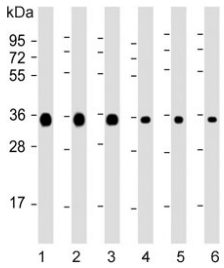
GAPDH Antibody [clone 1653CT401.3.33] (F54491)

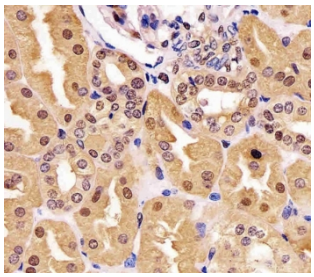
Catalog No.	Formulation	Size
F54491-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54491-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

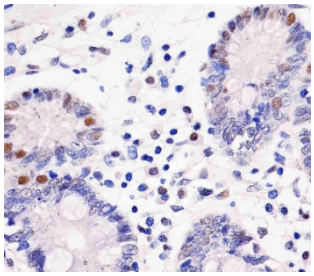
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	IgG1, kappa
Clone Name	1653CT401.3.33
Purity	Protein G affinity
UniProt	P04406
Localization	Cytoplasmic, nuclear
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:25 Immunofluorescence : 1:25
Limitations	This GAPDH antibody is available for research use only.



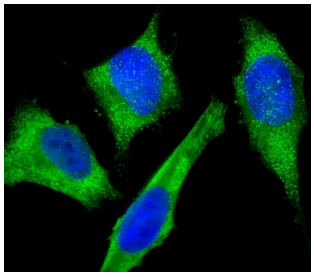
Western blot testing of 1) human HeLa, 2) human Jurkat, 3) human A549, 4) rat C6, 5) mouse NIH 3T3 and 6) mouse brain lysate with GAPDH antibody. Predicted molecular weight ~36 kDa.



IHC testing of FFPE human kidney tissue with GAPDH antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



IHC testing of FFPE human colon tissue with GAPDH antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



Immunofluorescent staining of fixed and permeabilized human HeLa cells with GAPDH antibody (green) and DAPI nuclear stain (blue).

Description

Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC. Modulates the organization and assembly of the cytoskeleton. Facilitates the CHP1-dependent microtubule and membrane associations through its ability to stimulate the binding of CHP1 to microtubules (By similarity). Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D- glyceroyl phosphate. Component of the GAIT (gamma interferon- activated inhibitor of translation) complex which mediates interferon-gamma-induced transcript-selective translation inhibition in inflammation processes. Upon interferon-gamma treatment assembles into the GAIT complex which binds to stem loop-containing GAIT elements in the 3'-UTR of diverse inflammatory mRNAs (such as ceruplasmin) and suppresses their translation.

Application Notes

The stated application concentrations are suggested starting points. Titration of the GAPDH antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Recombinant human protein was used as the immunogen for the GAPDH antibody.

Storage

Aliquot the GAPDH antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.