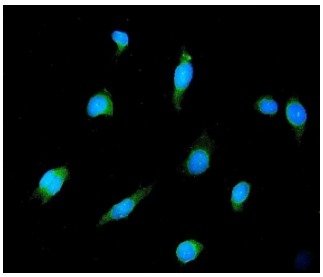
GAD2 Antibody / GAD65 [clone 7G2] (RQ5856)

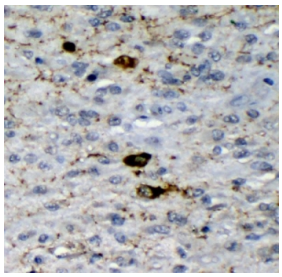
Catalog No.	Formulation	Size
RQ5856	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

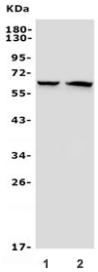
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	7G2
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q05329
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry : 1-2ug/ml Immunofluorescence : 2-4ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This GAD2 antibody is available for research use only.



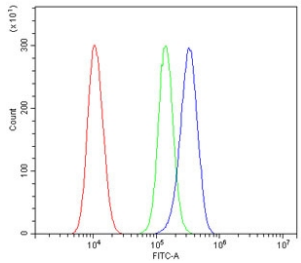
Immunofluorescent staining of FFPE human HeLa cells with GAD2 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



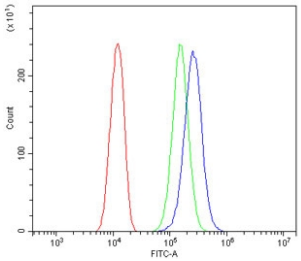
IHC staining of FFPE human glioma with GAD2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) rat brain and 2) mouse brain lysate with GAD2 antibody. Predicted molecular weight ~65 kDa.



Flow cytometry testing of human 293T cells with GAD2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= GAD2 antibody.



Flow cytometry testing of human U-2 OS cells with GAD2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= GAD2 antibody.

Description

Glutamate decarboxylase 2, also known as GAD65, is an enzyme that in humans is encoded by the GAD2 gene. This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein.

Application Notes

Optimal dilution of the GAD2 antibody should be determined by the researcher.

Immunogen

Amino acids KVIDFHYPNELLQEYNWELADQPQNLEEILMHCQ from the human protein were used as the immunogen for the GAD2 antibody.

Storage

After reconstitution, the GAD2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.