

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IA-2/PTPRN in ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 815811
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IA-2/PTPRN Val35-Arg575 Accession # Q16849
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

IA-2 (insulinoma-associated protein 2), also called PTPRN (protein tyrosine phosphatase-like N) and ICA512 (islet cell antigen 512), is a 130 kDa member of the receptor tyrosine phosphatase family of type I transmembrane enzymes. It is not active as a phosphatase but acts an autoantigen in type I (insulin-dependent) diabetes. It is mainly expressed in neuroendocrine cells types within pancreatic islets, adrenal medulla, pituitary, and the central nervous system, and is present within membranes of regulated secretory granules. It is induced by glucose and insulin in the pancreas and is thought to contribute to the growth of β cells. Cleavage at a furin-like site at amino acid (aa) 448 creates a 60-66 kDa transmembrane fragment. Within the region used as an immunogen, human IA-2 shares 80% aa sequence identity with mouse and rat IA-2.

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