

Anti-PTPRN / IA-2 Antibody (clone 8E3)

Mouse Anti Human Monoclonal Antibody

Catalog # ALS17721

Product Information

Application	WB, IHC-P, E
Primary Accession	Q16849
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Names	8E3
Calculated MW	105848
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	5798
Alias Symbol	PTPRN
Other Names	PTPRN, ICA512, IA2, ICA 512, Islet antigen 2, Islet cell antigen 2, Islet cell autoantigen 3, IA-2, Ia-2 antigen, ICA3, PTP-NP-2, PTP IA-2, R-PTP-N, IA-2/PTP, Islet cell antigen 512
Target/Specificity	Human PTPRN
Reconstitution & Storage	Protein A purified
Precautions	Anti-PTPRN / IA-2 Antibody (clone 8E3) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PTPRN
Synonyms	ICA3, ICA512
Function	Plays a role in vesicle-mediated secretory processes (PubMed: 24843546). Required for normal accumulation of secretory vesicles in hippocampus, pituitary and pancreatic islets (By similarity). Required for the accumulation of normal levels of insulin- containing vesicles and preventing their degradation (PubMed: 24843546). Plays a role in insulin secretion in response to glucose stimuli (PubMed: 24843546). Required for normal accumulation of the neurotransmitters norepinephrine, dopamine and serotonin in the brain (By similarity). In females, but not in males, required for normal accumulation and secretion of pituitary hormones, such as luteinizing hormone (LH) and

follicle-stimulating hormone (FSH) (By similarity). Required to maintain normal levels of renin expression and renin release (By similarity). Seems to lack intrinsic enzyme activity (By similarity). May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization (By similarity).

Cellular Location

Membrane {ECO:0000250|UniProtKB:Q63259}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q63259} Cytoplasmic vesicle, secretory vesicle membrane; Single-pass type I membrane protein. Perikaryon {ECO:0000250|UniProtKB:Q63259}. Cell projection, axon {ECO:0000250|UniProtKB:Q63259}. Synapse {ECO:0000250|UniProtKB:Q63259}. Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q63259}. Endosome {ECO:0000250|UniProtKB:Q63259}. Note=Detected on neuronal secretory vesicles, but not on synaptic vesicles. Colocalizes with insulin-containing secretory granules (PubMed:25561468). Primarily detected on secretory vesicle membranes. Transiently found at the cell membrane, when secretory vesicles fuse with the cell membrane to release their cargo. Is then endocytosed and recycled to secretory vesicles via the Golgi apparatus membranes. {ECO:0000250|UniProtKB:Q63259, ECO:0000269|PubMed:25561468} [ICA512-cleaved cytosolic fragment]: Nucleus

Tissue Location

Expression is restricted to neuroendocrine cells. Found in pancreas, brain and pituitary.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.